

STN-CAS Search

> screen 970 AND 2067

L7 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\09463059b.str

L8 STRUCTURE UPLOADED

=> que L8 AND L7

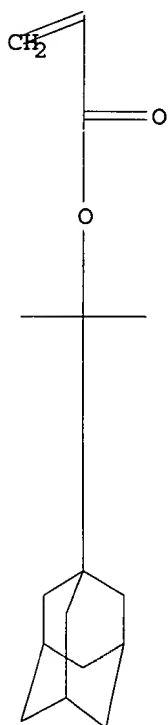
L9 QUE L8 AND L7

=> d

L9 HAS NO ANSWERS

L7 SCR 970 AND 2067

L8 STR



(1)

Structure attributes must be viewed using STN Express query preparation.

L9 QUE ABB=ON PLU=ON L8 AND L7

=> s l9 sss ssam

COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID

The query entered contains both search terms created by structure-building or screen commands and text search terms. L#s created via the STRUCTURE or SCREEN commands must be searched in the structures files separately from text terms or profiles. The L# answer sets from structure searches can be used in crossover searches and can be combined with text terms.

=> s l9 sss sam

SAMPLE SEARCH INITIATED 11:47:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 15 TO ITERATE

100.0% PROCESSED 15 ITERATIONS
SEARCH TIME: 00.00.01

14 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 68 TO 532
PROJECTED ANSWERS: 56 TO 504

L10 14 SEA SSS SAM L8 AND L7

=> FIL CAPLUS USPATFULL HCAPLUS
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.76	346.81

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-42.13

CA SUBSCRIBER PRICE

FILE 'CAPLUS' ENTERED AT 11:47:27 ON 11 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 11:47:27 ON 11 SEP 2002
CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'HCAPLUS' ENTERED AT 11:47:27 ON 11 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l10

L11 27 L10

=> d his

(FILE 'HOME' ENTERED AT 11:41:13 ON 11 SEP 2002)

FILE 'REGISTRY' ENTERED AT 11:41:22 ON 11 SEP 2002

L1 SCREEN 970 AND 2067
L2 STRUCTURE UPLOADED
L3 QUE L2 AND L1
L4 41 S L3 SSS SAM

FILE 'CAPLUS, USPATFULL, HCAPLUS' ENTERED AT 11:42:07 ON 11 SEP 2002

L5 146 S L4
L6 76 DUPLICATE REM L5 (70 DUPLICATES REMOVED)

FILE 'REGISTRY' ENTERED AT 11:46:26 ON 11 SEP 2002

L7 SCREEN 970 AND 2067
L8 STRUCTURE UPLOADED
L9 QUE L8 AND L7
L10 14 S L9 SSS SAM

FILE 'CAPLUS, USPATFULL, HCAPLUS' ENTERED AT 11:47:27 ON 11 SEP 2002

L11 27 S L10

=> s l11 not l6

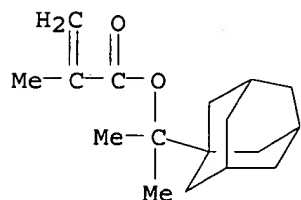
L12 18 L11 NOT L6

=> d l12 1-18 ibib hitstr abs

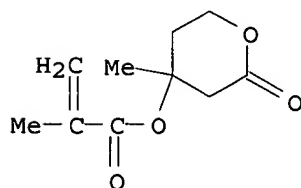
L12 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:381304 CAPLUS
 DOCUMENT NUMBER: 136:393273
 TITLE: Chemically amplified photoresists, resins therefor, preparation thereof, and semiconductor device fabrication thereby
 INVENTOR(S): Arai, Takashi
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

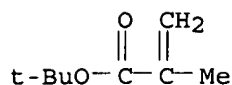
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
IT	JP 2002145934	A2	20020522	JP 2000-340585	20001108
	427886-92-8P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(chem. amplified pos. photoresist polymers comprising monomers with acid-labile protective groups)				
RN	427886-92-8	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-methyl-1-tricyclo[3.3.1.1 ^{3,7}]dec-1-ylethyl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	279218-76-7				
CMF	C17 H26 O2				



CM 2
 CRN 177080-66-9
 CMF C10 H14 O4



CM 3
 CRN 585-07-9
 CMF C8 H14 O2



AB The photoresists, forming patterns with high resolu. without scum generation in alkali development, contain polymers comprising monomers which bear acid-labile ester protective groups (Markush given).

L12 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:270846 CAPLUS

DOCUMENT NUMBER: 136:316923

TITLE: Positive-working chemically amplified photoresist composition containing specific acid-sensitive resin for semiconductor device fabrication

INVENTOR(S): Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002107936	A2	20020410	JP 2000-296881	20000928
US 2002064727	A1	20020530	US 2001-960343	20010924
PRIORITY APPLN. INFO.:			JP 2000-290654	A 20000925
			JP 2000-296881	A 20000928

OTHER SOURCE(S): MARPAT 136:316923

IT 409334-08-3 409334-10-7

RL: TEM (Technical or engineered material use); USES (Uses)
(resin in Pos.-working chem. amplified photoresist compn. for semiconductor device fabrication)

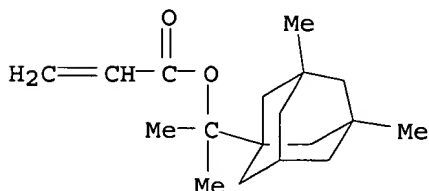
RN 409334-08-3 CAPLUS

CN 2-Propenoic acid, 1-(3,5-dimethyltricyclo[3.3.1.1^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with bicyclo[2.2.1]hept-2-ene and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 409334-07-2

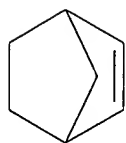
CMF C18 H28 O2



CM 2

CRN 498-66-8

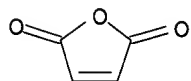
CMF C7 H10



CM 3

CRN 108-31-6

CMF C4 H2 O3



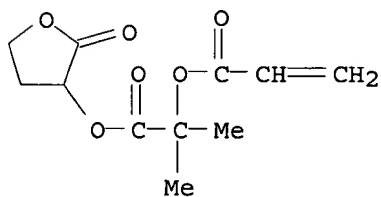
RN 409334-10-7 CAPLUS

CN 2-Propenoic acid, 1,1-dimethyl-2-oxo-2-[(tetrahydro-2-oxo-3-furanyl)oxy]ethyl ester, polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione and 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 383196-94-9

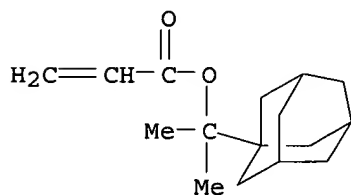
CMF C11 H14 O6



CM 2

CRN 300833-10-7

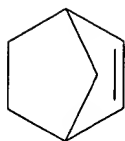
CMF C16 H24 O2



CM 3

CRN 498-66-8

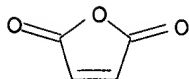
CMF C7 H10



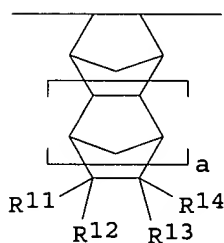
CM 4

CRN 108-31-6

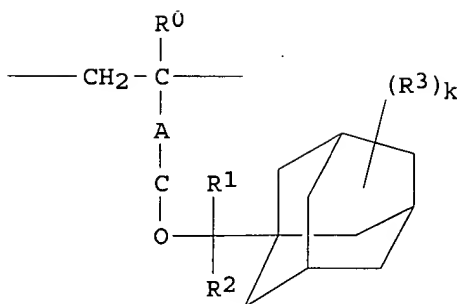
CMF C4 H2 O3



GI



I



II

AB The title compn. contains an acid-sensitive resin increasing soly. in an alkali and an acid-generator, wherein the resin has repeating unit I (R11-14 = H, alkyl; a = 0, 1) and II (R1-2 = lower alkyl; R3 = lower alkyl, lower alkoxy, halo; k = 0-3 integer). The compn. generates little faulty development.

L12 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:72739 CAPLUS

DOCUMENT NUMBER: 136:142610

TITLE: Positive photoresist composition

INVENTOR(S): Sato, Kenichiro; Aoai, Toshiaki

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 49 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002009666	A1	20020124	US 2001-834639	20010416
JP 2001296661	A2	20011026	JP 2000-115497	20000417
JP 2002031890	A2	20020131	JP 2000-215574	20000717
JP 2002040662	A2	20020206	JP 2000-231670	20000731
PRIORITY APPLN. INFO.:			JP 2000-115497 A	20000417
			JP 2000-215574 A	20000717

IT 392309-94-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acid-decomposable resin; pos. photoresist compn. contg.)

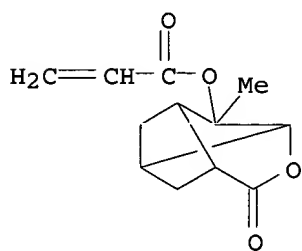
RN 392309-94-3 CAPLUS

CN 2-Propenoic acid, 7-methyl-5-oxo-4-oxatricyclo[4.3.0.0^{3,8}]non-7-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione, 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl 2-propenoate and octahydro-1,4,4,6-tetramethyl-1H-5,8a-methanoazulen-6-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 392309-93-2

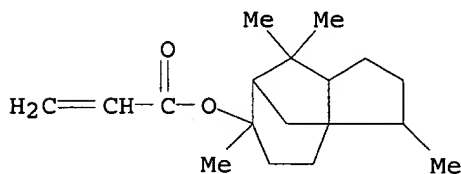
CMF C12 H14 O4



CM 2

CRN 313698-62-3

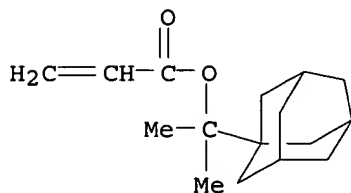
CMF C18 H28 O2



CM 3

CRN 300833-10-7

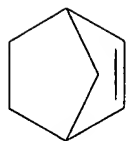
CMF C16 H24 O2



CM 4

CRN 498-66-8

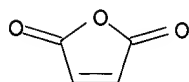
CMF C7 H10



CM 5

CRN 108-31-6

CMF C4 H2 O3



AB Provided is a pos. photoresist compn. comprising a resin which contains specific repeating units and whose dissolving rate toward an alk. developing soln. is increased by the action of an acid and a compd. which generates an acid upon irradiation with an actinic ray or a radiation. The present invention relates to pos. photoresist compn. used in an ultramicro lithog. process, e.g., for the prodn. of VLSI and high capacity microchips processes.

L12 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:347119 CAPLUS

DOCUMENT NUMBER: 134:346475

TITLE: Adamantyl-containing polymer for photoresist and polymer composition for photoresist

INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji; Shinoda, Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai, Akira; Inoue, Keizo

PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

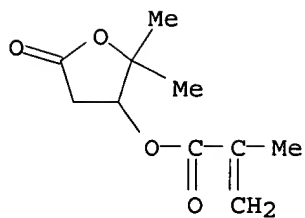
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 2001131232	A2	20010515	JP 1999-312329	19991102
IT	338790-63-9P 338790-67-3P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(adamantyl-contg. polymer for etching-resistant photoresist for semiconductor device fabrication)				
RN	338790-63-9	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl ester, polymer with 1-methyl-1-tricyclo[3.3.1.1 ^{3,7}]dec-1-ylethyl				
	2-methyl-2-propenoate and tetrahydro-2,2-dimethyl-5-oxo-3-furanyl				
	2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

CRN 324761-31-1

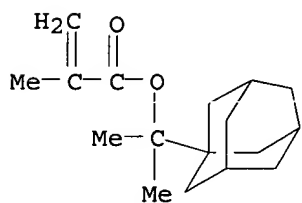
CMF C10 H14 O4



CM 2

CRN 279218-76-7

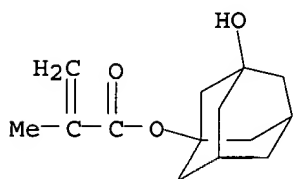
CMF C17 H26 O2



CM 3

CRN 115372-36-6

CMF C14 H20 O3



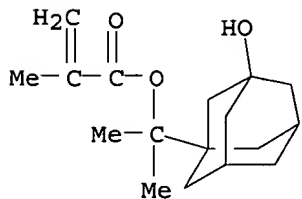
RN 338790-67-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-2H-pyran-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-49-1

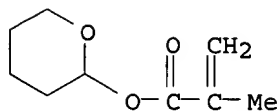
CMF C17 H26 O3



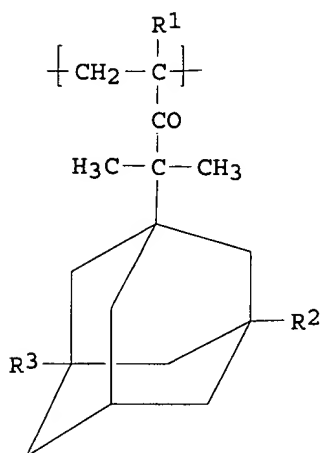
CM 2

CRN 52858-59-0

CMF C9 H14 O3



GI



I

AB The polymer is that having .gtoreq.1 adamantyl-substituted monomer unit I (R1 = H, Me; R2, R3 = H, OH). The photoresist compn. contains the polymer and a photosensitive acid-generating agent. The photoresist compn., showing good etching resistance, is suitable for photolithog. in semiconductor device fabrication.

L12 ANSWER 5 OF 18 USPATFULL

ACCESSION NUMBER: 2002:16787 USPATFULL
TITLE: Positive photoresist composition
INVENTOR(S): Sato, Kenichiro, Shizuoka, JAPAN
Aoai, Toshiaki, Shizuoka, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002009666	A1	20020124
APPLICATION INFO.:	US 2001-834639	A1	20010416 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-115497	20000417
	JP 2000-215574	20000717
	JP 2000-231670	20000731

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100
Pennsylvania Avenue, N.W., Washington, DC, 20037
NUMBER OF CLAIMS: 18

EXEMPLARY CLAIM: 1
LINE COUNT: 1642
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 392309-94-3P

(acid-decomposable resin; pos. photoresist compn. contg.)

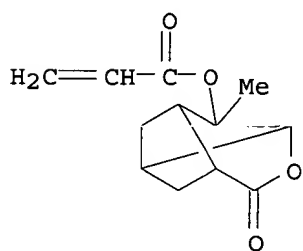
RN 392309-94-3 USPTFULL

CN 2-Propenoic acid, 7-methyl-5-oxo-4-oxatricyclo[4.3.0.0^{3,8}]non-7-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione,
1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl 2-propenoate and
octahydro-1,4,4,6-tetramethyl-1H-5,8a-methanoazulen-6-yl 2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 392309-93-2

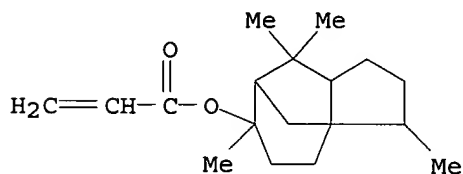
CMF C12 H14 O4



CM 2

CRN 313698-62-3

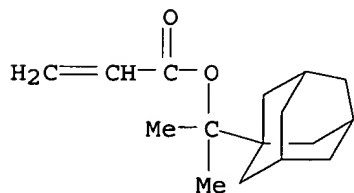
CMF C18 H28 O2



CM 3

CRN 300833-10-7

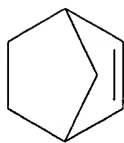
CMF C16 H24 O2



CM 4

CRN 498-66-8

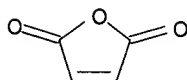
CMF C7 H10



CM 5

CRN 108-31-6

CMF C4 H2 O3



AB Provided is a positive photoresist composition comprising a resin which contains specific repeating units and whose dissolving rate toward an alkaline developing solution is increased by the action of an acid and a compound which generates an acid upon irradiation with an actinic ray or a radiation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:381304 HCAPLUS

DOCUMENT NUMBER: 136:393273

TITLE: Chemically amplified photoresists, resins therefor, preparation thereof, and semiconductor device fabrication thereby

INVENTOR(S): Arai, Takashi

PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

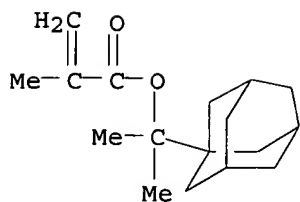
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 2002145934	A2	20020522	JP 2000-340585	20001108
IT	427886-92-8P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(chem. amplified pos. photoresist polymers comprising monomers with acid-labile protective groups)				
RN	427886-92-8	HCAPLUS			
CN	2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-methyl-1-tricyclo[3.3.1.1 ^{3,7}]dec-1-ylethyl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

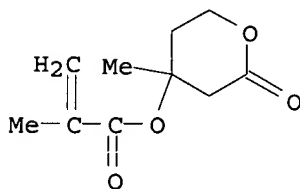
CRN 279218-76-7

CMF C17 H26 O2



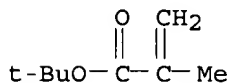
CM 2

CRN 177080-66-9
CMF C10 H14 O4



CM 3

CRN 585-07-9
CMF C8 H14 O2



AB The photoresists, forming patterns with high resolu. without scum generation in alkali development, contain polymers comprising monomers which bear acid-labile ester protective groups (Markush given).

L12 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:292089 HCAPLUS

DOCUMENT NUMBER: 136:316934

TITLE: Positive-working photoresist composition for fabrication of semiconductor device

INVENTOR(S): Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002116544	A2	20020419	JP 2000-310761	20001011

OTHER SOURCE(S): MARPAT 136:316934

IT 412015-88-4

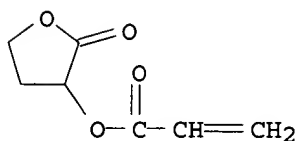
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working photoresist compn. for fabrication of semiconductor device)

RN 412015-88-4 HCAPLUS
CN 2-Propenoic acid, 1-(3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl)-1-methylethyl
ester, polymer with 2,5-furandione, 1,2,3,4,4a,5,8,8a-octahydro-1,4:5,8-
dimethanonaphthalene and tetrahydro-2-oxo-3-furanyl 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 328249-37-2

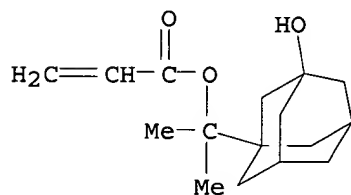
CMF C7 H8 O4



CM 2

CRN 262608-27-5

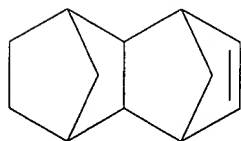
CMF C16 H24 O3



CM 3

CRN 21635-90-5

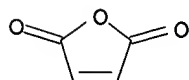
CMF C12 H16



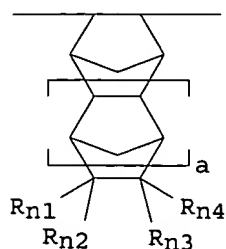
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI



I

AB The photoresist compn. contains a resin whose soly. rate in alk. developer increases by reaction with an acid and having a norbornene-based repeating unit I ($a = 0, 1$) and a OH group-contg. alicyclic hydrocarbyl ester group, and a compd. generating an acid upon irradiation with an actinic ray or radiation. The photoresist provides little fault pattern having improved adhesion to an inorg. antireflection film.

L12 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:270846 HCAPLUS

DOCUMENT NUMBER: 136:316923

TITLE: Positive-working chemically amplified photoresist composition containing specific acid-sensitive resin for semiconductor device fabrication

INVENTOR(S): Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002107936	A2	20020410	JP 2000-296881	20000928
US 2002064727	A1	20020530	US 2001-960343	20010924
PRIORITY APPLN. INFO.:			JP 2000-290654	A 20000925
			JP 2000-296881	A 20000928

OTHER SOURCE(S): MARPAT 136:316923

IT 409334-08-3 409334-10-7

RL: TEM (Technical or engineered material use); USES (Uses)
(resin in Pos.-working chem. amplified photoresist compn. for semiconductor device fabrication)

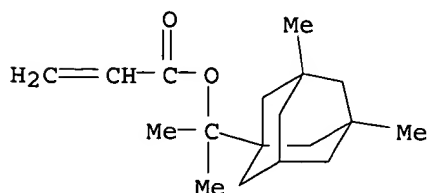
RN 409334-08-3 HCAPLUS

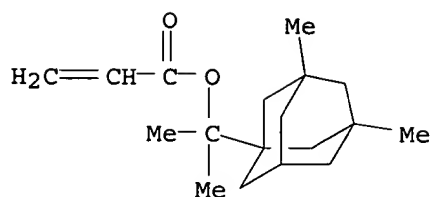
CN 2-Propenoic acid, 1-(3,5-dimethyltricyclo[3.3.1.1^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with bicyclo[2.2.1]hept-2-ene and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 409334-07-2

CMF C18 H28 O2

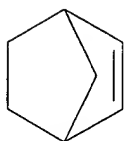




CM 2

CRN 498-66-8

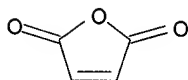
CMF C7 H10



CM 3

CRN 108-31-6

CMF C4 H2 O3



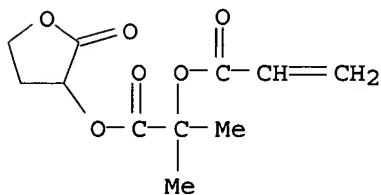
RN 409334-10-7 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethyl-2-oxo-2-[(tetrahydro-2-oxo-3-furanyl)oxy]ethyl ester, polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione and 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 383196-94-9

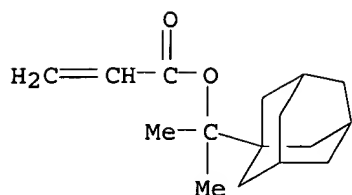
CMF C11 H14 O6



CM 2

CRN 300833-10-7

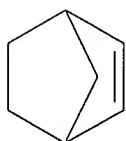
CMF C16 H24 O2



CM 3

CRN 498-66-8

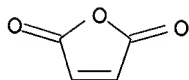
CMF C7 H10



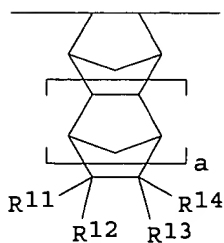
CM 4

CRN 108-31-6

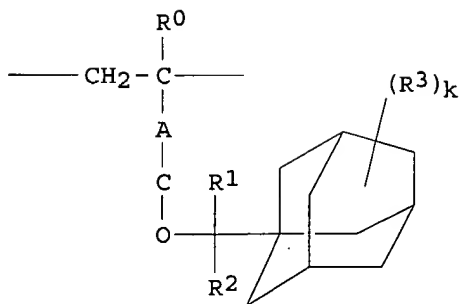
CMF C4 H2 O3



GI



I



II

AB The title compn. contains an acid-sensitive resin increasing soly. in an alkali and an acid-generator, wherein the resin has repeating unit I (R11-14 = H, alkyl; a = 0, 1) and II (R1-2 = lower alkyl; R3 = lower alkyl, lower alkoxy, halo; k = 0-3 integer). The compn. generates little faulty development.

L12 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:72739 HCAPLUS

DOCUMENT NUMBER: 136:142610

TITLE: Positive photoresist composition

INVENTOR(S): Sato, Kenichiro; Aoai, Toshiaki

PATENT ASSIGNEE(S): Japan
 SOURCE: U.S. Pat. Appl. Publ., 49 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

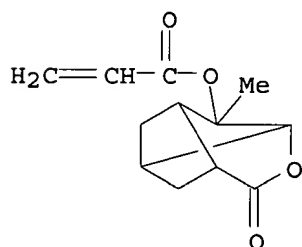
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002009666	A1	20020124	US 2001-834639	20010416
JP 2001296661	A2	20011026	JP 2000-115497	20000417
JP 2002031890	A2	20020131	JP 2000-215574	20000717
JP 2002040662	A2	20020206	JP 2000-231670	20000731

PRIORITY APPLN. INFO.: JP 2000-115497 A 20000417
 JP 2000-215574 A 20000717
 JP 2000-231670 A 20000731

IT **392309-94-3P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acid-decomposable resin; pos. photoresist compn. contg.)
 RN 392309-94-3 HCAPLUS
 CN 2-Propenoic acid, 7-methyl-5-oxo-4-oxatricyclo[4.3.0.03,8]non-7-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl 2-propenoate and octahydro-1,4,4,6-tetramethyl-1H-5,8a-methanoazulen-6-yl 2-propenoate (9CI) (CA INDEX NAME)

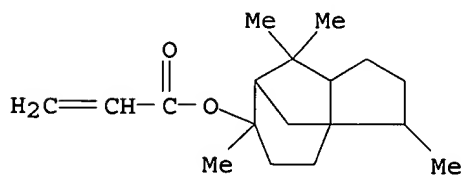
CM 1

CRN 392309-93-2
 CMF C12 H14 O4



CM 2

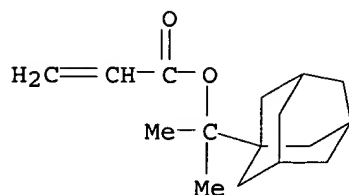
CRN 313698-62-3
 CMF C18 H28 O2



CM 3

CRN 300833-10-7

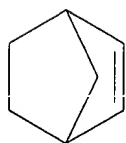
CMF C16 H24 O2



CM 4

CRN 498-66-8

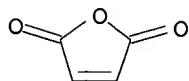
CMF C7 H10



CM 5

CRN 108-31-6

CMF C4 H2 O3



AB Provided is a pos. photoresist compn. comprising a resin which contains specific repeating units and whose dissolving rate toward an alk. developing soln. is increased by the action of an acid and a compd. which generates an acid upon irradiation with an actinic ray or a radiation. The present invention relates to pos. photoresist compn. used in an ultramicro lithog. process, e.g., for the prodn. of VLSI and high capacity microchips processes.

L12 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:644598 HCAPLUS

DOCUMENT NUMBER: 135:218729

TITLE: Lactone ring-containing polymers and resin compositions for photoresists

INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji; Shinoda, Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai, Akira

PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

JP 2001240625 A2 20010904 JP 2000-49549 20000225

IT 357341-10-7P 357341-14-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of lactone ring-contg. polymers for photoresists)

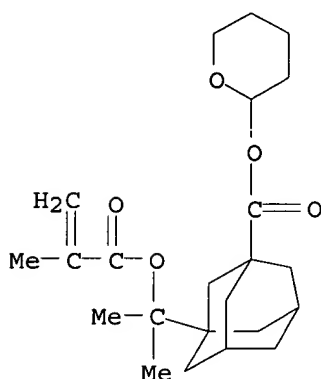
RN 357341-10-7 HCAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxylic acid, 3-[1-methyl-1-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, tetrahydro-2H-pyran-2-yl ester, polymer with 2,5-furandione, 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-methyl-2-propenoate and 3a,4,7,7a-tetrahydro-4,7-methanobenzofuran-2(3H)-one (9CI) (CA INDEX NAME)

CM 1

CRN 357341-09-4

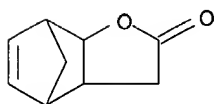
CMF C23 H34 O5



CM 2

CRN 357340-99-9

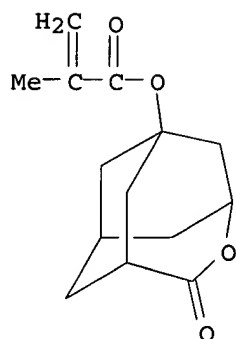
CMF C9 H10 O2



CM 3

CRN 348596-87-2

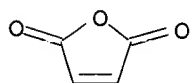
CMF C14 H18 O4



CM 4

CRN 108-31-6

CMF C4 H2 O3



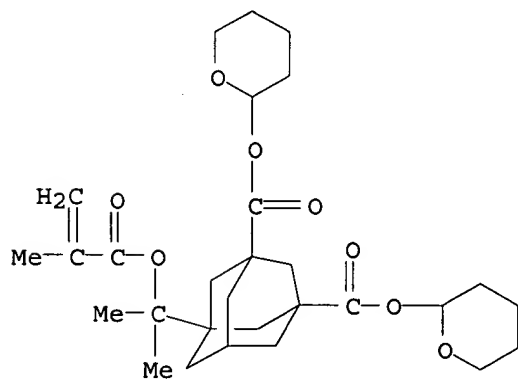
RN 357341-14-1 HCAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-1,3-dicarboxylic acid, 5-[1-methyl-1-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, bis(tetrahydro-2H-pyran-2-yl) ester, polymer with 2,5-furandione, 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-methyl-2-propenoate and 3a,4,7,7a-tetrahydro-4,7-methanobenzofuran-2(3H)-one (9CI) (CA INDEX NAME)

CM 1

CRN 357341-13-0

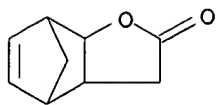
CMF C29 H42 O8



CM 2

CRN 357340-99-9

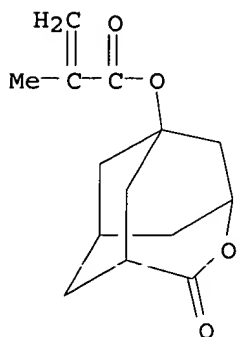
CMF C9 H10 O2



CM 3

CRN 348596-87-2

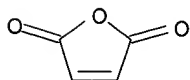
CMF C14 H18 O4



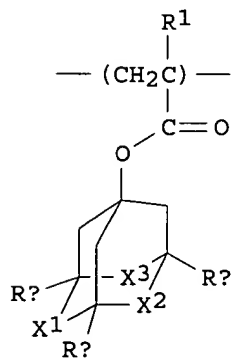
CM 4

CRN 108-31-6

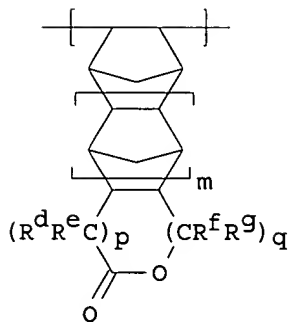
CMF C4 H2 O3



GI



I



II

AB Photoresist compns. contain polymers contg. monomer units I and/or II (R1, Ra-Rg = H, Me; X1-X3 = CH2, CO2; at least one of X1-X3 is CO2; m, p, q = 0-2) and photoacid generators. The compns. show good adhesion to substrates such as Si and can precisely form fine patterns in semiconductor manufg.

L12 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:347119 HCAPLUS

DOCUMENT NUMBER: 134:346475

TITLE: Adamantyl-containing polymer for photoresist and polymer composition for photoresist

INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji; Shinoda, Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai, Akira; Inoue, Keizo

PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001131232	A2	20010515	JP 1999-312329	19991102

IT 338790-63-9P 338790-67-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(adamantyl-contg. polymer for etching-resistant photoresist for semiconductor device fabrication)

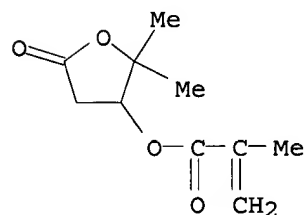
RN 338790-63-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl 2-methyl-2-propenoate and tetrahydro-2,2-dimethyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-31-1

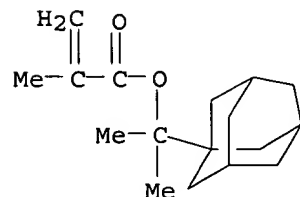
CMF C10 H14 O4



CM 2

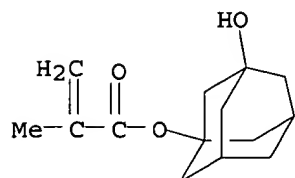
CRN 279218-76-7

CMF C17 H26 O2



CM 3

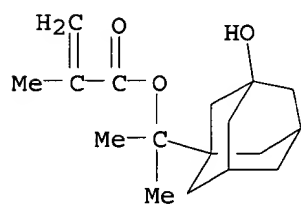
CRN 115372-36-6
CMF C14 H20 O3



RN 338790-67-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-2H-pyran-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

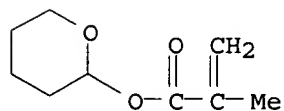
CM 1

CRN 324761-49-1
CMF C17 H26 O3

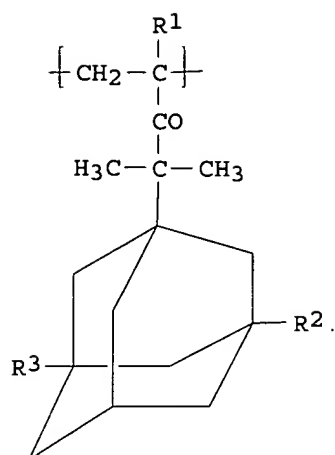


CM 2

CRN 52858-59-0
CMF C9 H14 O3



GI



AB The polymer is that having .gtoreq.1 adamantyl-substituted monomer unit I (R1 = H, Me; R2, R3 = H, OH). The photoresist compn. contains the polymer and a photosensitive acid-generating agent. The photoresist compn., showing good etching resistance, is suitable for photolithog. in semiconductor device fabrication.

L12 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:261353 HCAPLUS

DOCUMENT NUMBER: 134:303020

TITLE: Far-UV sensitive positive-working chemically amplified photoresist composition for micro photolithography

INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

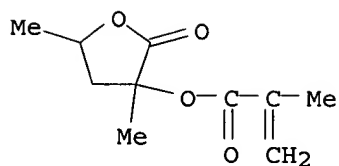
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

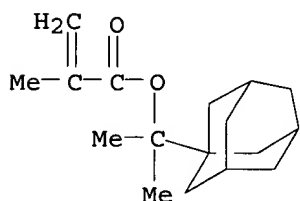
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT	JP 2001100421	A2	20010413	JP 1999-280202	19990930
	334643-72-0P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(resin contg. quaternary ammonium salt group in far-UV sensitive pos.-working chem. amplified photoresist compn.)				
RN	334643-72-0 HCAPLUS				
CN	Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, salt with trifluoromethanesulfonic acid (1:1), polymer with 3,5-dideoxy-2-C-methylpentonic acid .gamma.-lactone 2-(2-methyl-2-propenoate) and 1-methyl-1-tricyclo[3.3.1.1.3]dec-1-ylethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	332877-32-4				
CMF	C10 H14 O4				



CM 2

CRN 279218-76-7

CMF C17 H26 O2



CM 3

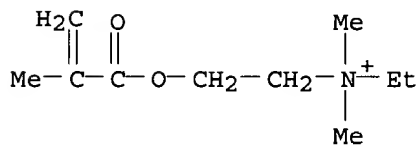
CRN 334643-04-8

CMF C10 H20 N O2 . C F3 O3 S

CM 4

CRN 48063-69-0

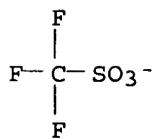
CMF C10 H20 N O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



AB The title compn. contains a photoacid generator and a resin increasing the soly. towards an alkali developer by reacting with an acid, wherein the resin has a quaternary ammonium salt group. The addn. of the acid-sensitive resin contg. quaternary ammonium salt group to the compn. provides improved development characteristics and eliminates rough edges on the pattern.

L12 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:117245 HCAPLUS

DOCUMENT NUMBER: 134:170832

TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser

INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

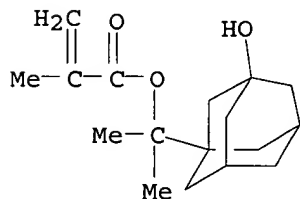
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

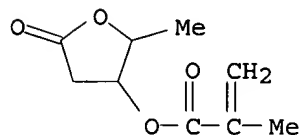
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
	JP 2001042535	A2	20010216	JP 1999-211370	19990726
IT	324761-53-7P 324761-58-2P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(alicyclic polymer in pos.-working photoresist compn.)				
RN	324761-53-7	HCAPLUS			
CN	2-Propenoic acid, 2-methyl-, 1-(3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-2-methyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	324761-49-1				
CMF	C17 H26 O3				



CM 2

CRN 324761-23-1

CMF C9 H12 O4



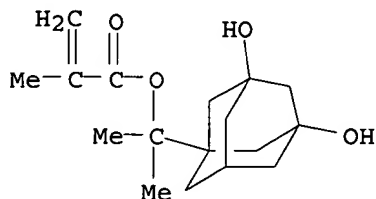
RN 324761-58-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-57-1

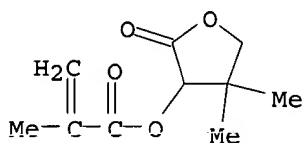
CMF C17 H26 O4



CM 2

CRN 156938-13-5

CMF C10 H14 O4



AB The title compn. contains a photoacid generator, a polymer having an alicyclic hydrocarbon group, and a surfactant, wherein the surfactant is fluoro or silicon-based. The compn. generates little faulty development and provides the good pattern profiles.

L12 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:117244 HCAPLUS

DOCUMENT NUMBER: 134:170858

TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser

INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

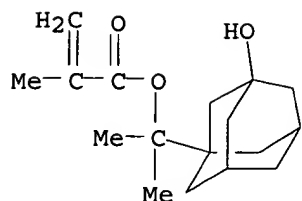
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001042534	A2	20010216	JP 1999-211369	19990726
IT	324761-53-7P		324761-58-2P		
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(alicyclic polymer in pos.-working photoresist compn.)				
RN	324761-53-7 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, 1-(3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-2-methyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

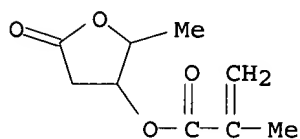
CRN 324761-49-1

CMF C17 H26 O3



CM 2

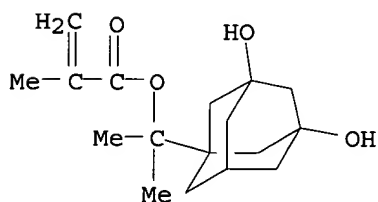
CRN 324761-23-1
CMF C9 H12 O4



RN 324761-58-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1-(3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

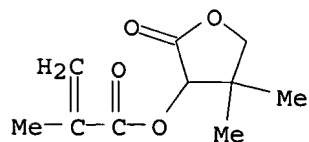
CM 1

CRN 324761-57-1
CMF C17 H26 O4



CM 2

CRN 156938-13-5
CMF C10 H14 O4

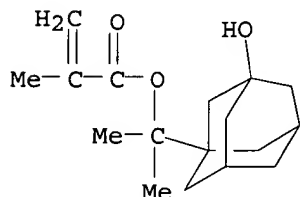


AB The title compn. contains a photoacid generator, a polymer having an alicyclic hydrocarbon group, and a mixed solvent, wherein the solvent contains 2-heptanone. The compn. provides the good pattern profiles and the excellent storageability.

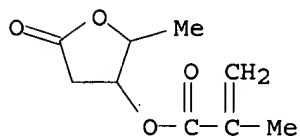
L12 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:117243 HCAPLUS

DOCUMENT NUMBER: 134:170831
 TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser
 INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

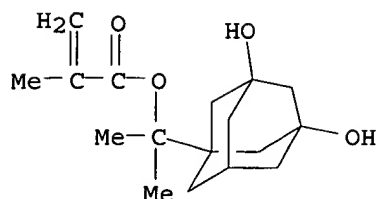
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001042533	A2	20010216	JP 1999-211368	19990726
IT	324761-53-7P 324761-58-2P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (alicyclic polymer in pos.-working photoresist compn.)				
RN	324761-53-7	HCAPLUS			
CN	2-Propenoic acid, 2-methyl-, 1-(3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-2-methyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	324761-49-1				
CMF	C17 H26 O3				



CM 2
 CRN 324761-23-1
 CMF C9 H12 O4

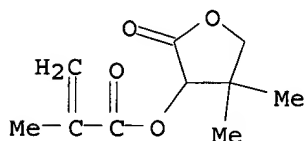


RN 324761-58-2 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1-(3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 324761-57-1
 CMF C17 H26 O4



CM 2

CRN 156938-13-5
CMF C10 H14 O4



AB The title compn. contains a photoacid generator, a polymer having an alicyclic hydrocarbon group, and a mixed solvent, wherein the solvent contains propylene glycol monomethyl ether acetate or propylene glycol monomethyl ether propionate. The compn. provides the evenly coated layer and the good storageability.

L12 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:117242 HCAPLUS

DOCUMENT NUMBER: 134:170830

TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser

INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

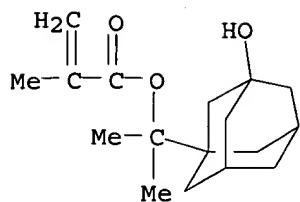
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001042532	A2	20010216	JP 1999-211367	19990726
IT	324761-53-7P 324761-58-2P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(alicyclic polymer in pos.-working photoresist compn.)				
RN	324761-53-7 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, 1-(3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-2-methyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

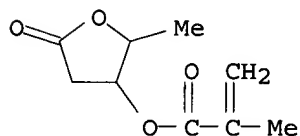
CRN 324761-49-1
CMF C17 H26 O3



CM 2

CRN 324761-23-1

CMF C9 H12 O4



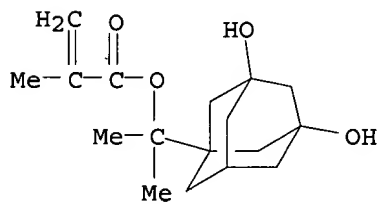
RN 324761-58-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(3,5-dihydroxytricyclo[3.3.1.1.3,7]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-57-1

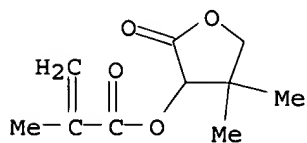
CMF C17 H26 O4



CM 2

CRN 156938-13-5

CMF C10 H14 O4



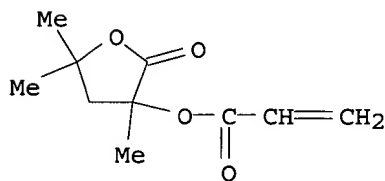
AB The title compn. contains a photoacid generator, a polymer, and a mixed solvent contg. Et lactate and Bu acetate, wherein the polymer has an alicyclic hydrocarbon group. The compn. provides the evenly coated layer and the good storageability.

L12 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:115197 HCAPLUS

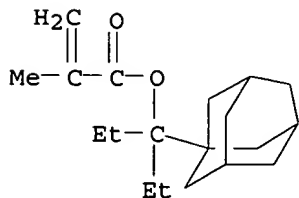
DOCUMENT NUMBER: 134:185945
 TITLE: Polymer for photoresists and resin compositions for photoresists
 INVENTOR(S): Funaki, Yoshinori; Tsutsumi, Kiyoharu; Takaragi, Akira; Inoue, Keizo
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 152 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

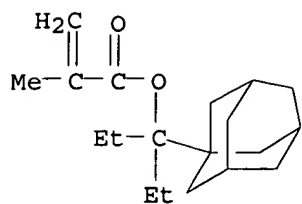
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010916	A1	20010215	WO 2000-JP5168	20000802
W: KR, US RW: DE, FR, GB				
JP 2001048931	A2	20010220	JP 1999-223110	19990805
JP 2001048933	A2	20010220	JP 1999-223144	19990805
EP 1172384	A1	20020116	EP 2000-949953	20000802
R: DE, FR, GB				
PRIORITY APPLN. INFO.:			JP 1999-223110	A 19990805
			JP 1999-223144	A 19990805
			WO 2000-JP5168	W 20000802

IT **325992-29-8P 325992-45-8P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymer for photoresists and resin compns. for photoresists)
 RN 325992-29-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1-ethyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylpropyl ester, polymer with 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-3,5,5-trimethyl-2-oxo-3-furanyl 2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 325991-61-5
 CMF C10 H14 O4



CM 2
 CRN 325991-24-0
 CMF C19 H30 O2

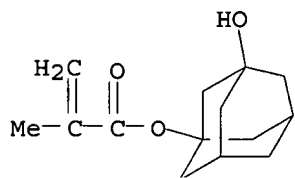




CM 3

CRN 115372-36-6

CMF C14 H20 O3



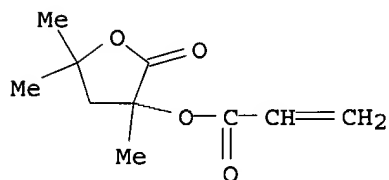
RN 325992-45-8 HCAPLUS

CN 2-Propenoic acid, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylpropyl 2-propenoate and tetrahydro-3,5,5-trimethyl-2-oxo-3-furanyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 325991-61-5

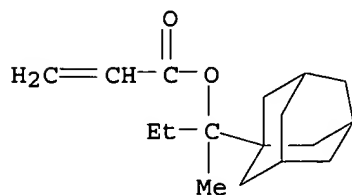
CMF C10 H14 O4



CM 2

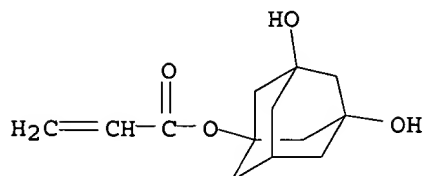
CRN 325991-25-1

CMF C17 H26 O2



CM 3

CRN 216581-85-0
CMF C13 H18 O4



GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A polymer comprises at least one kind of monomer units selected from I-IV (R1 = H, Me; R2,3 = H, OH, etc.; R5,6 = H, OH, CO; R7-9 = H, Me; R10,11 = C1-8 hydrocarbon; R12-14 = H, OH, Me), with the proviso that when the polymer comprises monomer units of III. It must also contain at least another kind of monomer units selected from among those represented by general formula V (R15,16 = H, OH, COOH; R17 = OH, CO, COOH) or the like. This polymer is excellent not only in transparency, soly. in alkali and tight adhesion but also in etching resistance, thus being useful as the resin for photoresists.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:98658 HCAPLUS

DOCUMENT NUMBER: 134:170817

TITLE: Positive-working photoresist composition for exposure to far ultraviolet light

INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

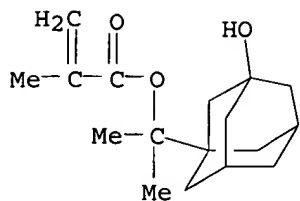
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
IT	JP 2001033969	A2	20010209	JP 1999-203676	19990716
	324761-53-7P		324761-58-2P		
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(pos.-working photoresist compn. contg. polymer with alicyclic group for exposure to far UV light)				
RN	324761-53-7	HCAPLUS			
CN	2-Propenoic acid, 2-methyl-, 1-(3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-2-methyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

CRN 324761-49-1

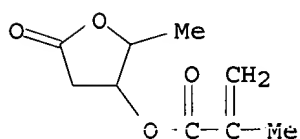
CMF C17 H26 O3



CM 2

CRN 324761-23-1

CMF C9 H12 O4



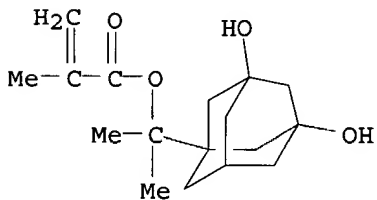
RN 324761-58-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(3,5-dihydroxytricyclo[3.3.1.1.3,7]dec-1-yl)-1-methylethyl ester, polymer with tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-57-1

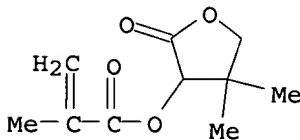
CMF C17 H26 O4



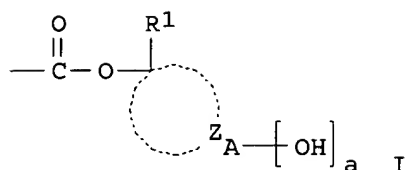
CM 2

CRN 156938-13-5

CMF C10 H14 O4



GI



AB The title compn. contains (1) a compd. which generates acids by irradiation of actinic ray or radiation and (2) a polymer contg. a group with an alicyclic hydrocarbon structure represented by I (R1 = Me, Et, n- or iso-Pr, n-, iso-, or sec-butyl; ZA = at. group required for forming alicyclic hydrocarbon group; a = 1, 2) and -CO2CR2R3ZB(OH)b (R2, R3 = C1-4 alkyl; ZB = 2- or 3-valent alicyclic hydrocarbon group; b = 1, 2). The polymer has alkali soly. which increases by acids. The compn. is sensitive to far UV light, esp. to ArF excimer laser light, and resist patterns with low edge roughness can be offered.

=> screen 970 AND 2067

L1 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\09463059a.str

L2 STRUCTURE UPLOADED

=> que L2 AND L1

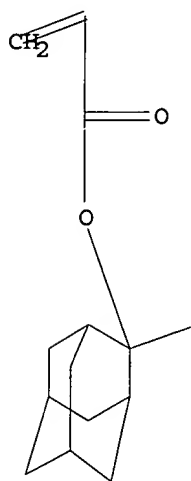
L3 QUE L2 AND L1

=> d

L3 HAS NO ANSWERS

L1 SCR 970 AND 2067

L2 STR



Structure attributes must be viewed using STN Express query preparation.

L3 QUE ABB=ON PLU=ON L2 AND L1

=> s l3 sss sam

SAMPLE SEARCH INITIATED 11:41:51 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 67 TO ITERATE

100.0% PROCESSED 67 ITERATIONS

41 ANSWERS

SEARCH TIME: 00.00.05

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 849 TO 1831

PROJECTED ANSWERS: 436 TO 1204

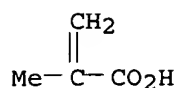
L4 41 SEA SSS SAM L2 AND L1

=> d

L4 ANSWER 1 OF 41 REGISTRY COPYRIGHT 2002 ACS

RN 437770-82-6 REGISTRY

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester,
polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate
and octahydro-6-hydroxy-1(or 3)-oxo-4,7-methanoisobenzofuran-5-yl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> FIL CAPLUS USPATFULL HCAPLUS
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
1.96	2.17

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 11:42:07 ON 11 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 11:42:07 ON 11 SEP 2002
CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'HCAPLUS' ENTERED AT 11:42:07 ON 11 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> d his

(FILE 'HOME' ENTERED AT 11:41:13 ON 11 SEP 2002)

FILE 'REGISTRY' ENTERED AT 11:41:22 ON 11 SEP 2002

L1 SCREEN 970 AND 2067
L2 STRUCTURE UPLOADED
L3 QUE L2 AND L1
L4 41 S L3 SSS SAM

FILE 'CAPLUS, USPATFULL, HCAPLUS' ENTERED AT 11:42:07 ON 11 SEP 2002

=> s l4

L5 146 L4

=> duplicate

ENTER REMOVE, IDENTIFY, ONLY, OR (?):rem

ENTER L# LIST OR (END):l5

DUPLICATE PREFERENCE IS 'CAPLUS, USPATFULL, HCAPLUS'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L5

L6 76 DUPLICATE REM L5 (70 DUPLICATES REMOVED)

=> d l6 1-76 ibib hitstr abs

L6 ANSWER 1 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1

ACCESSION NUMBER: 2002:466067 CAPLUS

DOCUMENT NUMBER: 137:54621

TITLE: Polymer for photoresist and resin compositions
therefor

INVENTOR(S): Funaki, Yoshinori; Tsutsumi, Kiyoharu; Inoue, Keizo;
Adachi, Tomoko

PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048217	A1	20020620	WO 2001-JP10832	20011211

W: JP, KR, US

RW: DE, FR, GB

PRIORITY APPLN. INFO.:

JP 2000-378750 A 20001213

OTHER SOURCE(S): MARPAT 137:54621

IT 437770-82-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresist resin compn.)

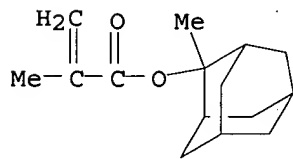
RN 437770-82-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and octahydro-6-hydroxy-1(or 3)-oxo-4,7-methanoisobenzofuran-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

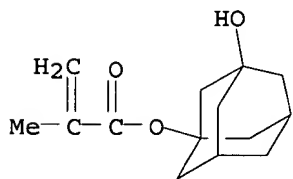
CMF C15 H22 O2



CM 2

CRN 115372-36-6

CMF C14 H20 O3



CM 3

CRN 437770-77-9

CMF C13 H16 O5

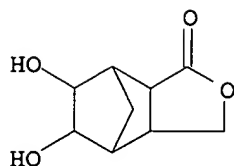
CCI IDS

CDES 8:ID

CM 4

CRN 437754-44-4

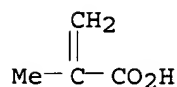
CMF C9 H12 O4



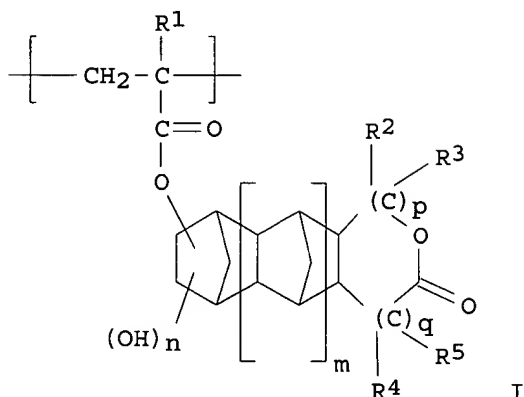
CM 5

CRN 79-41-4

CMF C4 H6 O2



GI



AB A polymer for photoresist comprises at least one kind of monomer units represented by I (R¹-5 = H, Me; m, p, q = 0, 1, 2; and n = 0, 1, with the proviso that the hydroxyl group and the carbonyloxy group attached to the main chain are bonded to one of the two left-end carbon atoms of the ring). When this polymer is used as the base of photoresist, the resulting photoresist is well balanced between adhesion to a substrate and etching resistance.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2

ACCESSION NUMBER: 2002:449670 CAPLUS

DOCUMENT NUMBER: 137:39324

TITLE: (Meth)acrylate esters, starting alcohols for the preparation thereof, processes for preparing both, polymers of the esters, chemically amplifiable resist compositions, and method for forming patterns

INVENTOR(S): Kamon, Yoshihiro; Fujiwara, Tadayuki; Kuwano, Hideaki; Momose, Hikaru; Koizumi, Atsushi

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan

SOURCE: PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046179	A1	20020613	WO 2001-JP10628	20011205
W: KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2002234882	A2	20020823	JP 2001-366958	20011130
PRIORITY APPLN. INFO.:			JP 2000-371712	A 20001206
			JP 2001-1728	A 20010109
			JP 2001-366958	A 20011130
			JP 2001-368904	A 20011203

OTHER SOURCE(S): MARPAT 137:39324

IT 436852-45-8P 436852-47-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of (meth)acrylate-based chem. amplification-type resist)

RN 436852-45-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with octahydro-1(or 3)-oxo-4,7-methanoisobenzofuran-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

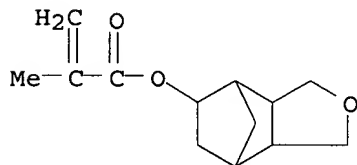
CM 1

CRN 436852-34-5

CMF C13 H16 O4

CCI IDS

CDES *

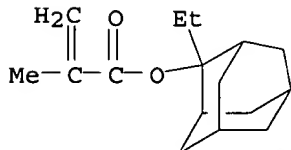


D2=O

CM 2

CRN 209982-56-9.

CMF C16 H24 O2



RN 436852-47-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and octahydro-1(or 3)-oxo-4,7-methanoisobenzofuran-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

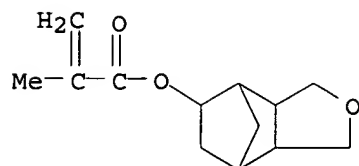
CM 1

CRN 436852-34-5

CMF C13 H16 O4

CCI IDS

CDES *

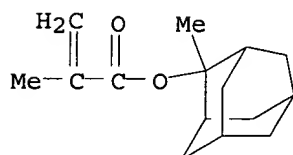


D2=O

CM 2

CRN 177080-67-0

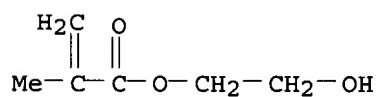
CMF C15 H22 O2



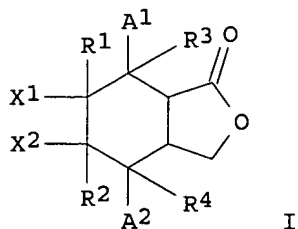
CM 3

CRN 868-77-9

CMF C6 H10 O3



GI



AB (Meth)acrylate esters are represented by the general formula I (R₁-4 = H, Me, Et; one of X₁ and X₂ is (meth)acryloyloxy and the other is H; A₁ and

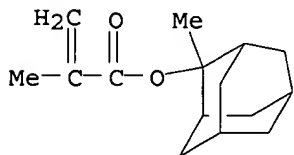
A2 are H or form O, CH₂, CH₂CH₂). These esters can be prepd. by prepg. a product of addn. of a 1,3-diene with maleic anhydride by Diels-Alder reaction, reducing this product into a lactone, hydrating this lactone into an alc., and esterifying this alc. with (meth)acrylic acid. The (co)polymers produced by polyimg. monomer compns. contg. the (meth)acrylate esters are excellent in transparency, dry-etching resistance, and soly. in org. solvents, and useful as resins for chem. amplifiable resist compns.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

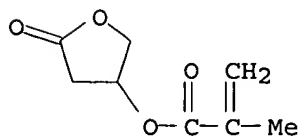
L6 ANSWER 3 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 3
 ACCESSION NUMBER: 2002:429451 CAPLUS
 DOCUMENT NUMBER: 137:26108
 TITLE: Positive-working photoresist composition
 INVENTOR(S): Hada, Hideo; Fujimura, Satoshi; Sasaki, Kazuhito; Iwai, Takeshi
 PATENT ASSIGNEE(S): Japan
 SOURCE: U.S. Pat. Appl. Publ., 7 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

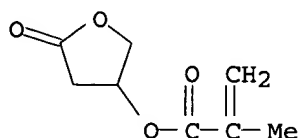
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002068238	A1	20020606	US 2001-996676	20011130
JP 2002169292	A2	20020614	JP 2000-369225	20001204

PRIORITY APPLN. INFO.: JP 2000-369225 A 20001204
 IT 348631-34-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (resin; pos.-working photoresist compn. contg.)
 RN 348631-34-5 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 177080-67-0
 CMF C15 H22 O2



CM 2
 CRN 130224-95-2
 CMF C8 H10 O4

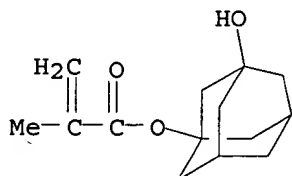




CM 3

CRN 115372-36-6

CMF C14 H20 O3



AB The invention discloses a pos.-working photoresist compn. suitable for patterning light-exposure with light having a wavelength of .ltoreq. 200 nm. The photoresist compn. comprises (1) a resinous compd. capable of being imparted with increased soly. in an aq. alk. soln. by interaction with an acid, (2) a radiation-sensitive acid generating compd. capable of generating an acid by irradiation with a radiation and (3) an org. solvent. The resinous compd. is a copolymer consisting of a combination of three types of specific (meth)acrylate units as the monomeric units. The patterned resist layer formed from the photoresist compn. has an advantage in respect of decreased line slimming caused by electron beam irradiation in SEM inspection.

L6 ANSWER 4 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4
 ACCESSION NUMBER: 2002:592336 CAPLUS
 DOCUMENT NUMBER: 137:147763
 TITLE: Chemically amplified positive-working photoresist composition providing fine resolution patterns
 INVENTOR(S): Fujimori, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 94 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

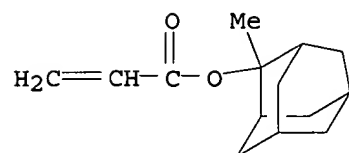
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2002221796	A2	20020809	JP 2001-18868	20010126

IT **398140-88-0P**
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (in chem. amplified pos.-working photoresist compn. for far-UV exposure)

RN 398140-88-0 CAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

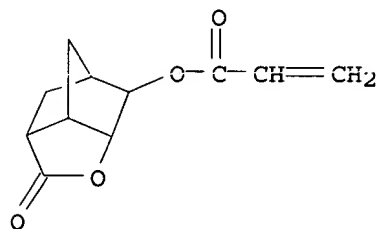
CM 1

CRN 249562-06-9
CMF C14 H20 O2



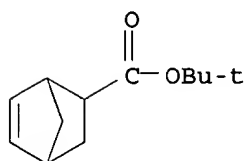
CM 2

CRN 242129-35-7
CMF C11 H12 O4



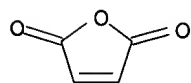
CM 3

CRN 154970-45-3
CMF C12 H18 O2

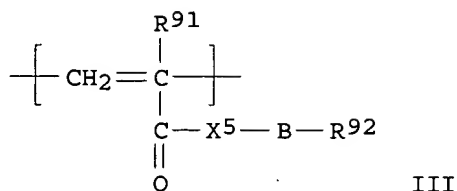
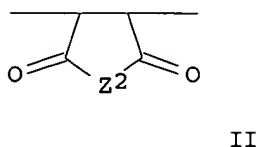
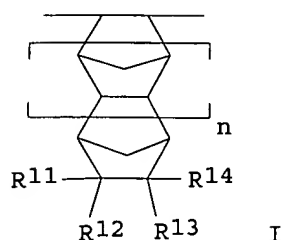


CM 4

CRN 108-31-6
CMF C4 H2 O3



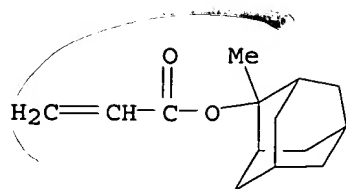
GI



AB The photoresist compn., used in fabrication of semiconductor devices, contains a photoacid generator, a polymer increasing the soly. in an alkali developer by reaction with an acid and having repeating groups I, II, and III [R11-14 = acid-decomposable group, H, halo, cyano, CO₂H, etc.; .gtoreq.2 of R11-14 may form a ring; n = 0, 1; Z₂ = O, N(R₄₁); R₄₁ = H, OH, (halo)alkyl, etc.; R₉₁ = H, lower alkyl, halo, CN; X₅ = O, S, etc.; R₉₂ = H, cyclic or chain alkyl, alkoxy, OH, etc.], and a compd. contg. CON(OH) group. The photoresist compn., esp. when using an ArF excimer laser, provides excellent post exposure delay (PED) stability and profiles and inhibits shortening of line pattern edges.

L6 ANSWER 5 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 5
 ACCESSION NUMBER: 2002:566567 CAPLUS
 DOCUMENT NUMBER: 137:132103
 TITLE: Positive-working photoresist composition
 INVENTOR(S): Fujimori, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 93 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

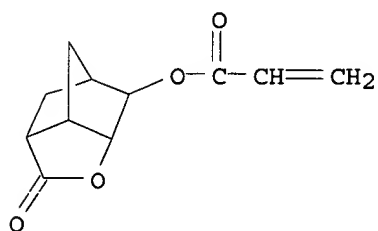
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2002214787	A2	20020731	JP 2001-13298	20010122
IT	398140-88-0P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (resin in pos.-working photoresist compn.)				
RN	398140-88-0 CAPLUS				
CN	Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
	CRN 249562-06-9				
	CMF C14 H20 O2				



CM 2

CRN 242129-35-7

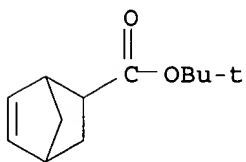
CMF C11 H12 O4



CM 3

CRN 154970-45-3

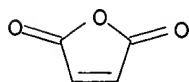
CMF C12 H18 O2



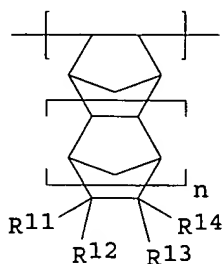
CM 4

CRN 108-31-6

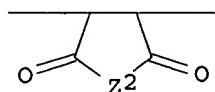
CMF C4 H2 O3



GI



I



II

AB The title compn. contains a light- or radiation-sensitive acid generator, a resin increasing soly. rate in an alkali developer by an acid, and a compd. having an acid-sensitive group, wherein the resin has repeating group I (R11-14 = acid-sensitive group, H, halo, cyano, etc.; n = 0, 1), II (Z2 = -O-, -N(R41)-; R41 = H, OH, alkyl, etc.), and [CH2-C(R91)(CO-X5-B-R92)] (R91 = H, lower alkyl, halo, -CN; X5 = -O-, -S-, -NR93; R93 = H, chain or cyclic alkyl; B = single bond, connecting group; R92 = H, chain or cyclic alkyl, alkoxy, carboxy, etc.) and wherein the compd. having the acid-sensitive group generates a group, which is sol. in the alkali developer or more sol. in the alkali developer before the acid reaction. The compn. shows the improved stability during the post exposure delay (PED).

L6 ANSWER 6 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6
 ACCESSION NUMBER: 2002:566566 CAPLUS
 DOCUMENT NUMBER: 137:132102
 TITLE: Positive-working photoresist composition
 INVENTOR(S): Fujimori, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 78 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002214786	A2	20020731	JP 2001-10481	20010118

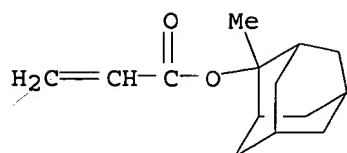
IT **398140-88-0P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin in pos.-working photoresist compn.)

RN 398140-88-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1.3,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

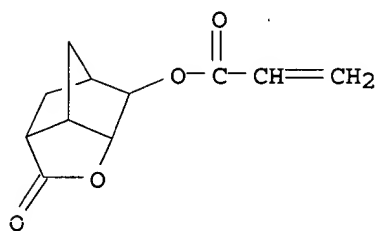
CM 1

CRN 249562-06-9
 CMF C14 H20 O2



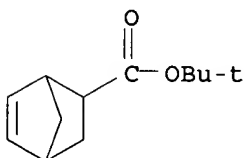
CM 2

CRN 242129-35-7
CMF C11 H12 O4



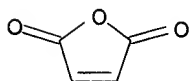
CM 3

CRN 154970-45-3
CMF C12 H18 O2

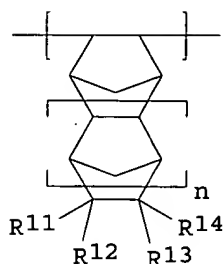


CM 4

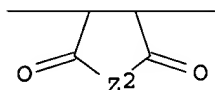
CRN 108-31-6
CMF C4 H2 O3



GI



I



II

AB The title compn. contains a light- or radiation-sensitive acid generator, a resin increasing soly. rate in an alkali developer by an acid, and a basic compd. not contg. an arom. group, wherein the resin has repeating group I (R11-14 = acid-sensitive group, H, halo, cyano, etc.; n = 0, 1), II (Z2 = -O-, -N(R41)-; R41 = H, OH, alkyl, etc.), and [CH2-C(R91)(CO-X5-B-R92)] (R91 = H, lower alkyl, halo, -CN; X5 = -O-, -S-, -NR93; R93 = H, chain or cyclic alkyl; B = single bond, connecting group; R92 = H, chain or cyclic alkyl, alkoxy, carboxy, etc.). The compn. shows the improved stability during the post exposure delay (PED).

L6 ANSWER 7 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 7
 ACCESSION NUMBER: 2002:538441 CAPLUS
 DOCUMENT NUMBER: 137:116950
 TITLE: Chemically amplified far-UV positive photoresists compositions with improved exposure margin and defocus latitude
 INVENTOR(S): Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

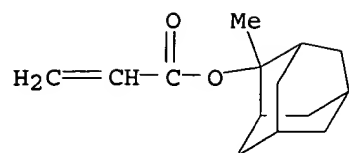
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202607	A2	20020719	JP 2000-402246	20001228

OTHER SOURCE(S): MARPAT 137:116950
 IT **398140-88-0P**, tert-Butyl norbornenecarboxylate-maleic anhydride-2-methyl-2-adamantyl acrylate-norbornenelacton acrylate copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (far-UV pos. photoresists having sulfonium and iodonium photoacid generators with improved exposure margin and defocus latitude)
 RN 398140-88-0 CAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

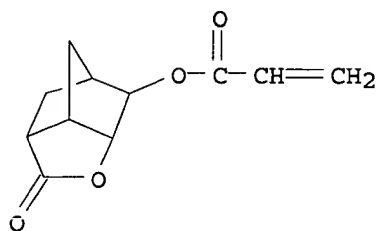
CMF C14 H20 O2



CM 2

CRN 242129-35-7

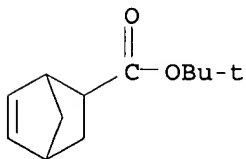
CMF C11 H12 O4



CM 3

CRN 154970-45-3

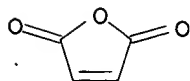
CMF C12 H18 O2



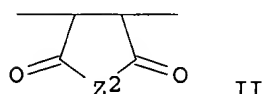
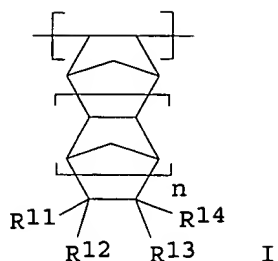
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI



AB The resist compns. comprise (A) photoacid generators Q1Q2Q3S+X- [Q1-3 = (un)substituted phenyl; substituent = H, alkyl, alkoxy, OH, halo, SR; R = alkyl, aryl; X = RFSO3; RF = C.gtoeq.2-fluoroalkyl], X-Y1S+(Y2)Z1SZ2S+Y3Y4X- [Y1-4 = (un)substituted Ph (max. 2 substituents); Z1, Z2 = (un)substituted phenylene (max. 2 substituents); substituent, X = same as above], and Q4I+Q5X- [Q4, Q5 = (un)substituted phenyl; substituent, X = same as above] and (B) resins, which become alkali-sol. by acid decompn., comprising repeating units I (R11-14 = acid-decomposable group, H, halo, cyano, COOH, etc.; n = 0, 1), II (Z2 = O, NR41; R41 = H, OH, alkyl, haloalkyl, OSO2R42; R42 = alkyl, haloalkyl, etc.), and CH2CR91COX5BR92 (R91 = H, lower alkyl, halo, CN; X5 = O, S, NR93, NR93SO2; R93 = H, alkyl; B = single bond, linking group; R92 = H, alkyl, alkoxy, OH, etc.).

L6 ANSWER 8 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 8
 ACCESSION NUMBER: 2002:538440 CAPLUS
 DOCUMENT NUMBER: 137:116949
 TITLE: Storage-stable chemically amplified far-UV positive photoresists compositions with good sensitivity and no aggregation
 INVENTOR(S): Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

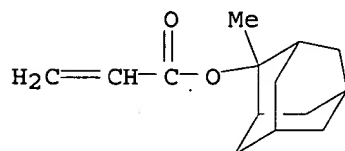
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2002202606	A2	20020719	JP 2000-402245	20001228
IT	398140-88-0P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (storage-stable far-UV pos. photoresist compns. in solvents with good soly.)				
RN	398140-88-0	CAPLUS			
CN	Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester,				

polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

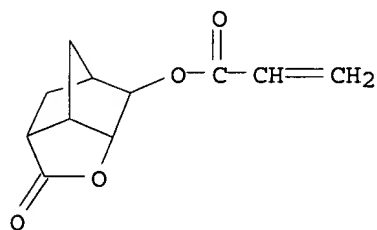
CMF C14 H20 O2



CM 2

CRN 242129-35-7

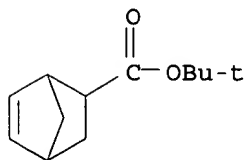
CMF C11 H12 O4



CM 3

CRN 154970-45-3

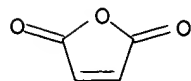
CMF C12 H18 O2



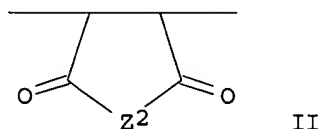
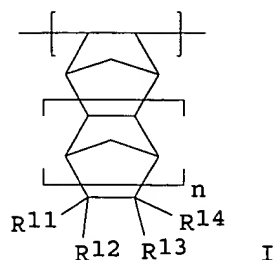
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI



AB The resist compns., useful for contact hole formation in semiconductor device fabrication, comprise (A) photoacid generators, (B) resins, which become alkali-sol. by acid decompn., comprising repeating units I (R11-14 = acid-decomposable group, H, halo, cyano, COOH, etc.; n = 0, 1), II (Z2 = O, NR41; R41 = H, OH, alkyl, haloalkyl, OSO2R42; R42 = alkyl, haloalkyl, etc.), and CH2CR91COX5BR92 (R91 = H, lower alkyl, halo, CN; X5 = O, S, NR93, NR93SO2; R93 = H, alkyl; B = single bond, linking group; R92 = H, alkyl, alkoxy, OH, etc.), and (C) mixed solvents comprising 1st solvents of propylene glycol monoalkyl ether alkoxyates and 2nd solvents selected from propylene glycol monoalkyl ethers, alkyl lactates, and alkyl alkoxypropionates or, instead of the 2nd solvents, 3rd solvents selected from .gamma.-butyrolactone, ethylene carbonate, and propylene carbonate. The solvents may comprise .gtoreq.1 solvents selected from each of the 1st, 2nd, and 3rd solvent groups.

L6 ANSWER 9 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 9
 ACCESSION NUMBER: 2002:539335 CAPLUS
 DOCUMENT NUMBER: 137:101423
 TITLE: Storage-stable chemically amplified far-UV positive photoresist compositions suitable for half-tone phase-shift photomasks
 INVENTOR(S): Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202605	A2	20020719	JP 2000-402244	20001228

OTHER SOURCE(S): MARPAT 137:101423

IT **398140-88-0P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (storage-stable far-UV pos. photoresists contg. triphenylsulfonium photoacid generators for half-tone phase-shift photomasks)

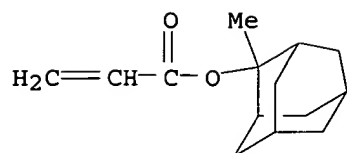
RN 398140-88-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1.3,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

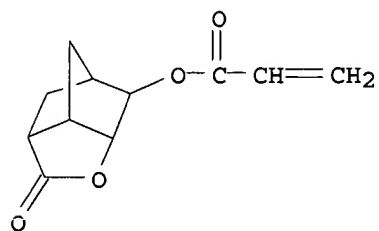
CMF C14 H20 O2



CM 2

CRN 242129-35-7

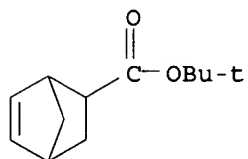
CMF C11 H12 O4



CM 3

CRN 154970-45-3

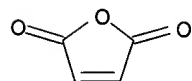
CMF C12 H18 O2



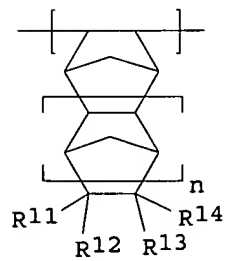
CM 4

CRN 108-31-6

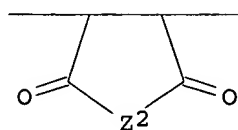
CMF C4 H2 O3



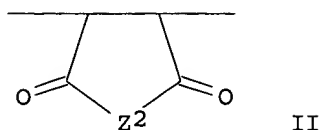
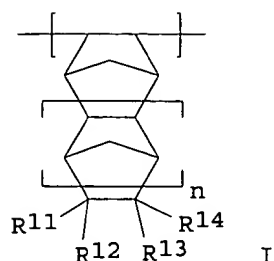
GI



I



II



AB The resist compns. comprise (A) photoacid generators [C₆H₅-lRs₄lS(C₆H₅-nRs₆n)C₆H₅-mRs₅m]+Xs- (Rs₄, Rs₅, Rs₆ = alkyl, cycloalkyl, alkoxy, OH, etc.; l = 1-5; m, n = 0-5; Xs- = RSO₃-; R = aliph. or arom. hydrocarbon group) and (B) resins comprising repeating units I (R₁₁-14 = acid-decomposable group, H, halo, cyano, COOH, etc.; n = 0, 1), II (Z₂ = O, NR₄₁; R₄₁ = H, OH, alkyl, haloalkyl, OSO₂R₄₂; R₄₂ = alkyl, haloalkyl, etc.), and CH₂CR₉₁COX₅BR₉₂ (R₉₁ = H, lower alkyl, halo, CN; X₅ = O, S, NR₉₃, NR₉₃SO₂; R₉₃ = H, alkyl; B = single bond, linking group; R₉₂ = H, alkyl, alkoxy, OH, etc.), wherein the resins become alkali-sol. by acid decompn.

L6 ANSWER 10 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 10
 ACCESSION NUMBER: 2002:381311 CAPLUS
 DOCUMENT NUMBER: 136:409016
 TITLE: Acrylic polymer compound for photoresist and manufacture thereof
 INVENTOR(S): Tsutsumi, Kiyoharu; Funaki, Katsunori
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT	JP 2002145954	A2	20020522	JP 2000-343762	20001110

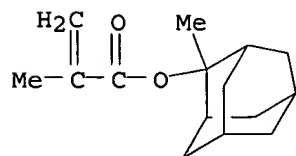
IT 348631-34-5P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acrylic polymer compd. for photoresist)

RN 348631-34-5 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

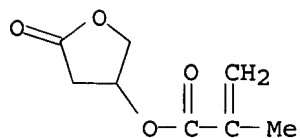
CMF C15 H22 O2



CM 2

CRN 130224-95-2

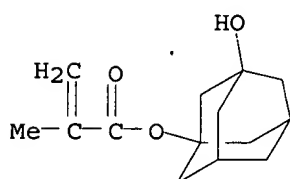
CMF C8 H10 O4



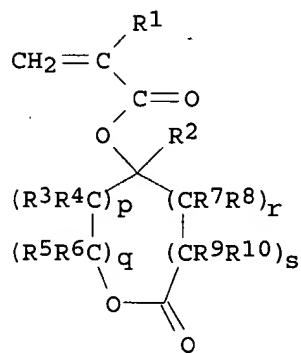
CM 3

CRN 115372-36-6

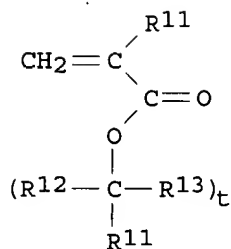
CMF C14 H20 O3



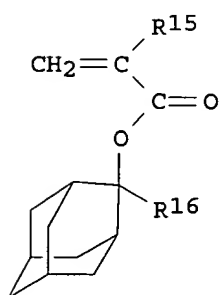
GI



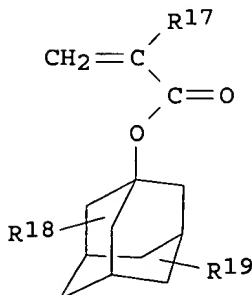
I



II



III



IV

AB The invention relates to an acrylic polymer compd. for a photoresist which

contains delocalized monomer units and has a small intramol. compn. distribution. The acrylic polymer compd. is a copolymer of (A) a (meth)acrylate I (R1 = H, Me; R2 = H, C1-3 hydrocarbon; R3-10 = H, Me; p, q, r, s = 0, 1; p+q+r+s = 2-4) having lactone ring, (B) .gtoreq.1 (meth)acrylate selected from II and III (R11 = H, Me; R12,13 = H, C1-3 hydrocarbon; R14 = C6-20 aliph. hydrocarbon capable of forming ring) having an aliph. hydrocarbon capable of forming a ring, (C) a (meth)acrylate IV (R17 = H, Me; R18,19 = substituent bonded to adamantane ring) contg. an adamantane ring. The manuf. involving a copolymn. of above monomers and a photoresist compn. contg. a photoacid are also claimed.

L6 ANSWER 11 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 11
 ACCESSION NUMBER: 2002:364226 CAPLUS
 DOCUMENT NUMBER: 136:393267
 TITLE: Positive-working resist compositions with high sensitivity and resolution
 INVENTOR(S): Fujimori, Toru; Tan, Shiro; Nakao, Hajime
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002139839	A2	20020517	JP 2000-332955	20001031

OTHER SOURCE(S): MARPAT 136:393267

IT 307976-27-8

RL: TEM (Technical or engineered material use); USES (Uses)
 (acid-decomposable polymer; pos.-working photoresist compns. with high sensitivity and reduced standing wave effect)

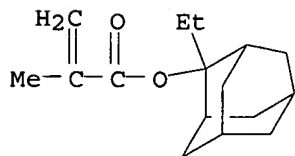
RN 307976-27-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

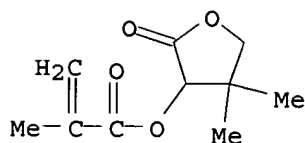
CMF C16 H24 O2



CM 2

CRN 156938-13-5

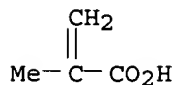
CMF C10 H14 O4



CM 3

CRN 79-41-4

CMF C4 H6 O2



AB The compns. contain photoacid generators (A), polymers (B) having alicyclic hydrocarbon structures in the main or side chains and good soly. in alkali developing agents by acid-induced decompn., and compds. (C) shown as RXC:OOH (R = F-contg. hydrocarbyl; X = F-free divalent linking group). The compns., useful for microphotofabrication using ArF excimer laser in semiconductor device fabrication, give resist patterns with good pattern profiles and reduced standing wave effect.

L6 ANSWER 12 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 12

ACCESSION NUMBER: 2002:364225 CAPLUS

DOCUMENT NUMBER: 136:393266

TITLE: Positive-working resist compositions with high sensitivity and resolution

INVENTOR(S): Fujimori, Toru; Tan, Shiro; Nakao, Hajime

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002139837	A2	20020517	JP 2000-332733	20001031

OTHER SOURCE(S): MARPAT 136:393266

IT 307976-27-8

RL: TEM (Technical or engineered material use); USES (Uses)
(acid-decomposable polymer; pos.-working photoresist compns. with high sensitivity and reduced standing wave effect)

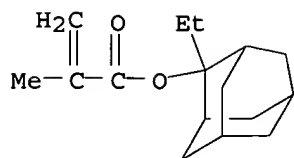
RN 307976-27-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

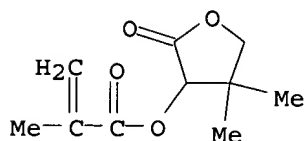
CMF C16 H24 O2



CM 2

CRN 156938-13-5

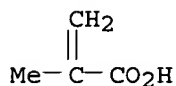
CMF C10 H14 O4



CM 3

CRN 79-41-4

CMF C4 H6 O2



AB The compns. contain photoacid generators (A), polymers (B) having alicyclic hydrocarbon structures in the main or side chains and good soly. in alkali developing agents by acid-induced decompn., and compds. (C) shown as RWC:OOB (R = F-contg. hydrocarbonyl; W = F-free divalent org. group; B = acid-decomposable group). The compns., useful for microphotofabrication using ArF excimer laser in semiconductor device fabrication, give resist patterns with good pattern profiles and reduced standing wave effect.

L6 ANSWER 13 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 13
 ACCESSION NUMBER: 2002:292089 CAPLUS
 DOCUMENT NUMBER: 136:316934
 TITLE: Positive-working photoresist composition for fabrication of semiconductor device
 INVENTOR(S): Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002116544	A2	20020419	JP 2000-310761	20001011

OTHER SOURCE(S): MARPAT 136:316934

IT 412015-90-8

RL: TEM (Technical or engineered material use); USES (Uses)
 (pos.-working photoresist compn. for fabrication of semiconductor

device)

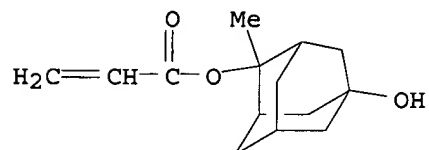
RN 412015-90-8 CAPLUS

CN 2-Propenoic acid, 5-hydroxy-2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione and
5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate (9CI) (CA INDEX
NAME)

CM 1

CRN 333359-29-8

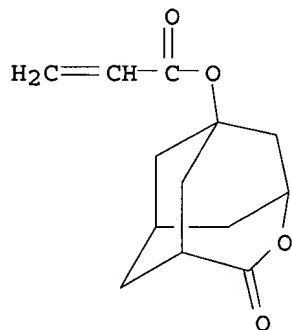
CMF C14 H20 O3



CM 2

CRN 265999-35-7

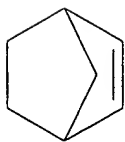
CMF C13 H16 O4



CM 3

CRN 498-66-8

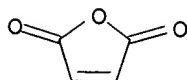
CMF C7 H10



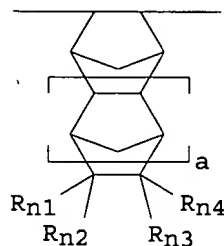
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI



I

AB The photoresist compn. contains a resin whose soly. rate in alk. developer increases by reaction with an acid and having a norbornene-based repeating unit I ($a = 0, 1$) and a OH group-contg. alicyclic hydrocarbyl ester group, and a compd. generating an acid upon irradiation with an actinic ray or radiation. The photoresist provides little fault pattern having improved adhesion to an inorg. antireflection film.

L6 ANSWER 14 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 14

ACCESSION NUMBER: 2002:237124 CAPLUS

DOCUMENT NUMBER: 136:286589

TITLE: Positive-working chemically amplified photoresist composition containing specific acid-sensitive resin and specific nitrogen-containing compound for semiconductor device fabrication

INVENTOR(S): Fujimori, Toru; Kawabe, Yasumasa; Nakao, Hajime

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 92 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002090987	A2	20020327	JP 2001-209543	20010710
PRIORITY APPLN. INFO.:		JP 2000-211642	A	20000712
OTHER SOURCE(S):		MARPAT 136:286589		

IT 398140-88-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin in pos.-working photoresist compn.)

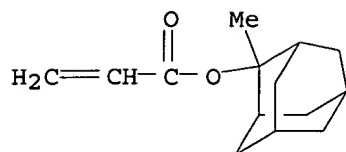
RN 398140-88-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

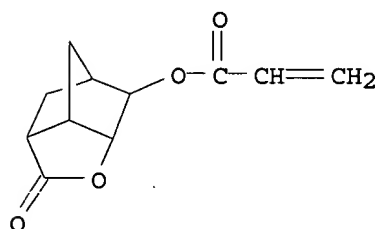
CMF C14 H20 O2



CM 2

CRN 242129-35-7

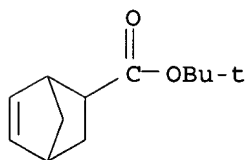
CMF C11 H12 O4



CM 3

CRN 154970-45-3

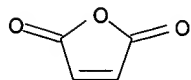
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



AB The title compn. contains a resin, which has an alicyclic hydrocarbon group, increasing the soly. rate in an alkali by reacting with an acid, a photo-acid generator, and a nitrogen-contg. compd., wherein the nitrogen-contg. compd. has group $-C(=O)-N(OH)-$. The compn. provides the improved line-edge roughness on the photoresist.

L6 . ANSWER 15 OF 76 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 15

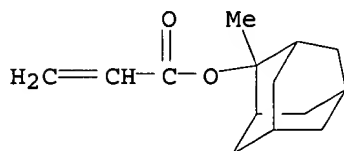
ACCESSION NUMBER: 2002:113853 CAPLUS

DOCUMENT NUMBER: 136:168215

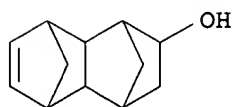
TITLE: Removal of metals from alicyclic polymers with high energy efficiency

INVENTOR(S): Nakase, Yoshihisa; Kakinoki, Katsuyuki; Murata, Kiyoshi
 PATENT ASSIGNEE(S): Jsr Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

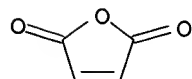
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2002047309	A2	20020212	JP 2000-231057	20000731
IT	330576-52-8P				
	RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses) (removal of metals from alicyclic polymers with high energy efficiency)				
RN	330576-52-8	CAPLUS			
CN	2-Propenoic acid, 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with 2,5-furandione and 1,2,3,4,4a,5,8,8a-octahydro-1,4:5,8-dimethanonaphthalen-2-ol (9CI) (CA INDEX NAME)				
CM	1				
CRN	249562-06-9				
CMF	C14 H20 O2				



CM 2
 CRN 7388-87-6
 CMF C12 H16 O



CM 3
 CRN 108-31-6
 CMF C4 H2 O3

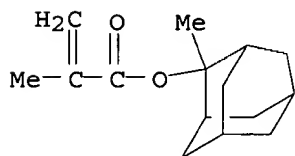


AB The metals are removed by either (1) passing monomer solns. through a zeta potential-generating filter and polyimg. the monomers to prep. the polymers

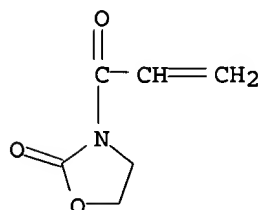
or (2) passing the polymer solns. through the filter to purify the polymer. The alicyclic polymers are useful for photoresist materials. Thus, a THF soln. of a 1,2,3,4,4a,5,8,8a-octahydro-1,4:5,8-dimethanonaphthalen-2-ol-maleic anhydride-2-methyl-2-adamantyl acrylate copolymer contg. 140 ppb Na and 71 ppb Fe was passed through a Zeta Plus GN filter giving a soln. contg. 40 ppb Na and 45 ppb Fe.

L6 ANSWER 16 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 16
 ACCESSION NUMBER: 2002:65851 CAPLUS
 DOCUMENT NUMBER: 136:126557
 TITLE: Radiation-sensitive chemically amplified resist resin composition for semiconductor device fabrication
 INVENTOR(S): Nishimura, Yukio; Doki, Katsuji; Yamamoto, Masashi; Kajita, Toru; Shimokawa, Tsutomu
 PATENT ASSIGNEE(S): JSR Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2002023371	A2	20020123	JP 2000-204223	20000705
IT	391262-41-2P 391262-43-4P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(resin in radiation sensitive chem. amplified resist resin compn.)				
RN	391262-41-2 CAPLUS				
CN	2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with 3-(1-oxo-2-propenyl)-2-oxazolidinone (9CI) (CA INDEX NAME)				
CM	1				
CRN	177080-67-0				
CMF	C15 H22 O2				



CM 2
 CRN 2043-21-2
 CMF C6 H7 N O3

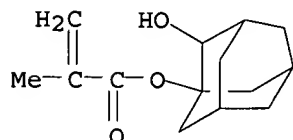


RN 391262-43-4 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester,
polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate
and 3-(1-oxo-2-propenyl)-2-oxazolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 391262-42-3

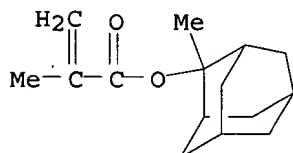
CMF C14 H20 O3



CM 2

CRN 177080-67-0

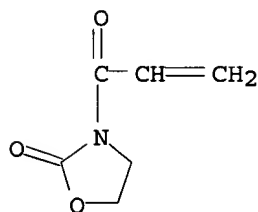
CMF C15 H22 O2



CM 3

CRN 2043-21-2

CMF C6 H7 N O3



AB The title compn. contains a resin becoming alkali sol. by an acid and a photoacid generator, wherein the resin contains substituted 2-oxazoline groups in the side chain. The compn., which contains the resin having 2-oxazolidone deriv. in the side chain, provides a resist of the sensitivity, resolu., pattern profile.

L6 ANSWER 17 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 17
ACCESSION NUMBER: 2002:23773 CAPLUS
DOCUMENT NUMBER: 136:93490
TITLE: Copolymer having specific terminal groups for chemically amplified photoresist composition
INVENTOR(S): Momose, Akira; Wakabayashi, Shigeo
PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

CODEN: JKXXAF

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002006502	A2	20020109	JP 2000-392856	20001225
PRIORITY APPLN. INFO.: JP 2000-120083			A	20000420
OTHER SOURCE(S): MARPAT 136:93490				
IT 386729-59-5P				

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (copolymer having specific terminal groups for chem. amplified photoresist compn.)

RN 386729-59-5 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, telomer with ethyl 2-propenoate, 1-octanethiol and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 111-88-6
 CMF C8 H18 S

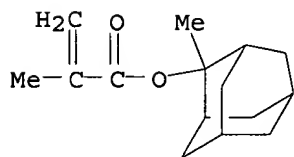
HS- (CH₂)₇-Me

CM 2

CRN 386729-58-4
 CMF (C₁₅ H₂₂ O₂ . C₈ H₁₀ O₄ . C₅ H₈ O₂)x
 CCI PMS

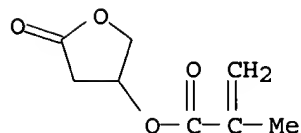
CM 3

CRN 177080-67-0
 CMF C₁₅ H₂₂ O₂



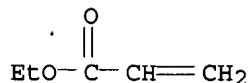
CM 4

CRN 130224-95-2
 CMF C₈ H₁₀ O₄



CM 5

CRN 140-88-5
CMF C5 H8 O2



AB The invention relates to a copolymer for chem. amplified photoresist compn. has alicyclic repeating units and lactone-based repeating units, wherein the copolymer has a terminal group (R1)(R2)(R3)C- (R1-2 = H, C1-10 alkyl, carbonyl-contg. group, etc.; R3 = CN, C2-10 cyanoalkyl). The copolymer provides the photoresist of improved sensitivity and the resolu ans is suitable for use in photolithog.

L6 ANSWER 18 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 18

ACCESSION NUMBER: 2002:119352 CAPLUS
DOCUMENT NUMBER: 136:175472
TITLE: Positive photosensitive composition for photofabrication using deep UV ray
INVENTOR(S): Kodama, Kunihiro; Aoi, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 120 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1179750	A1	20020213	EP 2001-117796	20010802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002122994	A2	20020426	JP 2001-188670	20010621
US 2002051933	A1	20020502	US 2001-921691	20010806
PRIORITY APPLN. INFO.:			JP 2000-240059	A 20000808

IT 398140-88-0P

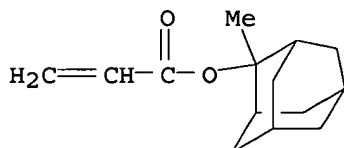
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin; deep UV photofabrication pos. photoresist compn. contg.)

RN 398140-88-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

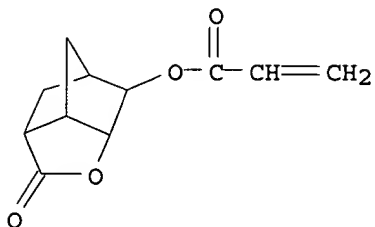
CRN 249562-06-9
CMF C14 H20 O2



CM 2

CRN 242129-35-7

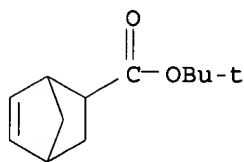
CMF C11 H12 O4



CM 3

CRN 154970-45-3

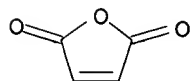
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



AB A pos. photosensitive compn. comprises: (A) a compd. generating an acid upon irradiation with one of an actinic ray and radiation; (B) a resin containing a monocyclic or polycyclic alicyclic hydrocarbon structure and increasing the solubility to an alkali developer by the action of an acid; and (C) an onium salt of carboxylic acid. The present invention relates to a positive photosensitive compound for use in the production process of a semiconductor such as IC, in the production of a circuit board such as liquid crystal and thermal head, and in other photofabrication processes.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L6 ANSWER 19 OF 76 USPATFULL

ACCESSION NUMBER: 2002:99037 USPATFULL

TITLE: Positive photosensitive composition

INVENTOR(S): Kodama, Kunihiro, Shizuoka, JAPAN

Aoi, Toshiaki, Shizuoka, JAPAN

PATENT ASSIGNEE(S): FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2002051933 A1 20020502
APPLICATION INFO.: US 2001-921691 A1 20010806 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-240059	20000808
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue, N.W., Washington, DC, 20037	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2260	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
IT 398140-88-0P		

(resin; deep UV photofabrication pos. photoresist compn. contg.)

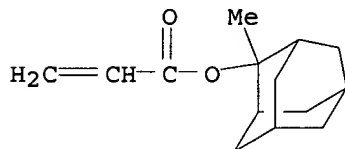
RN 398140-88-0 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester,
polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-
cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-
2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

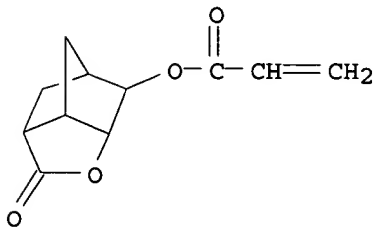
CMF C14 H20 O2



CM 2

CRN 242129-35-7

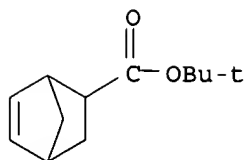
CMF C11 H12 O4



CM 3

CRN 154970-45-3

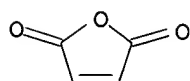
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



AB A positive photosensitive composition comprises: (A) a compound generating an acid upon irradiation with one of an actinic ray and radiation; (B) a resin containing a monocyclic or polycyclic alicyclic hydrocarbon structure and increasing the solubility to an alkali developer by the action of an acid; and (C) an onium salt of carboxylic acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 20 OF 76 USPATFULL

ACCESSION NUMBER: 2002:8180 USPATFULL

TITLE: Novel ester compounds, polymers, resist compositions and patterning process

INVENTOR(S): Hasegawa, Koji, Niigata-ken, JAPAN
Nishi, Tsunehiro, Niigata-ken, JAPAN
Kinsho, Takeshi, Niigata-ken, JAPAN
Watanabe, Takeru, Niigata-ken, JAPAN
Nakashima, Matsuo, Niigata-ken, JAPAN
Tachibana, Seiichiro, Niigata-ken, JAPAN
Hatakeyama, Jun, Niigata-ken, JAPAN

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002004178	A1	20020110
APPLICATION INFO.:	US 2001-837219	A1	20010419 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-119410	20000420
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	1600	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 366809-11-2P

(polymers of ester compds. for photoresist and patterning)

RN 366809-11-2 USPATFULL

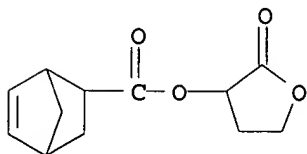
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, tetrahydro-2-oxo-3-furanyl

ester, polymer with 2,5-furandione and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 264193-09-1

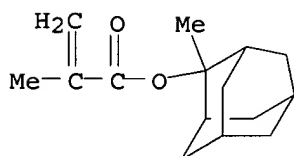
CMF C12 H14 O4



CM 2

CRN 177080-67-0

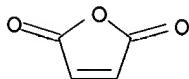
CMF C15 H22 O2



CM 3

CRN 108-31-6

CMF C4 H2 O3



AB An ester compound of the following formula (1) is provided. ##STR1##

R^{sup.1} is H, methyl or CH₂CO₂R^{sup.3}, R^{sup.2} is H, methyl or CO₂R^{sup.3}, R^{sup.3} is C₁₋₁₅ alkyl, k is 0 or 1, Z is a divalent C₂₋₂₀ hydrocarbon group which forms a single ring or bridged ring with the carbon atom and which may contain a hetero atom, m is 0 or 1, n is 0, 1, 2 or 3, and 2m+n=2 or 3. A resist composition comprising as the base resin a polymer resulting from the ester compound is sensitive to high-energy radiation, has excellent sensitivity, resolution, and etching resistance, and is suited for micropatterning using electron beams or deep-UV.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 21 OF 76 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 19

ACCESSION NUMBER: 2001:582183 CAPLUS

DOCUMENT NUMBER: 135:160158

TITLE: Polymeric compound for photoresist and resin composition for photoresist

INVENTOR(S): Funaki, Yoshinori; Tsutsumi, Kiyoharu; Takaragi, Akira

PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 120 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001057597	A1	20010809	WO 2001-JP515	20010126
W: KR, US				
RW: DE, FR, GB				
JP 2001215703	A2	20010810	JP 2000-24527	20000201
EP 1172694	A1	20020116	EP 2001-949041	20010126
R: DE, FR, GB				
PRIORITY APPLN. INFO.:			JP 2000-24527	A 20000201
			WO 2001-JP515	W 20010126

IT 353289-89-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymeric compd. for photoresist and resin compn. for photoresist)

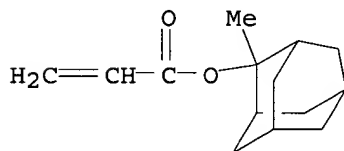
RN 353289-89-1 CAPLUS

CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2,5-furandione and 3a,4,7,7a-tetrahydro-4,7-methanoisobenzofuran-1(3H)-one (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

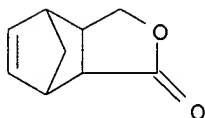
CMF C14 H20 O2



CM 2

CRN 85718-44-1

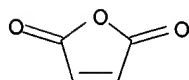
CMF C9 H10 O2

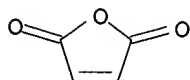


CM 3

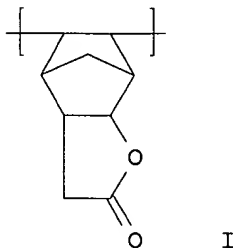
CRN 108-31-6

CMF C4 H2 O3





GI



AB The invention relates to a polymeric compd. for photoresists which comprises monomer units represented by formula I; and a resin compn. for photoresists which comprises the polymeric compd. and a photo-acid generator. The compn., which contains 3-(hydroxymethyl)-2-Norbornanecarboxylic acid .gamma.-lactone based repeating unit, has high adhesion to substrates and can precisely form a fine pattern.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 20
 ACCESSION NUMBER: 2001:115197 CAPLUS
 DOCUMENT NUMBER: 134:185945
 TITLE: Polymer for photoresists and resin compositions for photoresists
 INVENTOR(S): Funaki, Yoshinori; Tsutsumi, Kiyoharu; Takaragi, Akira; Inoue, Keizo
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 152 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

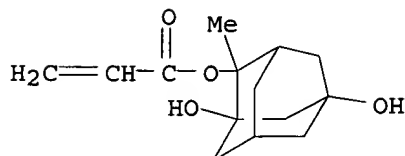
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010916	A1	20010215	WO 2000-JP5168	20000802
W: KR, US				
RW: DE, FR, GB				
JP 2001048931	A2	20010220	JP 1999-223110	19990805
JP 2001048933	A2	20010220	JP 1999-223144	19990805
EP 1172384	A1	20020116	EP 2000-949953	20000802
R: DE, FR, GB				
PRIORITY APPLN. INFO.:			JP 1999-223110	A 19990805
			JP 1999-223144	A 19990805
			WO 2000-JP5168	W 20000802

IT **325991-46-6P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymer for photoresists and resin compns. for photoresists)
 RN 325991-46-6 CAPLUS
 CN 2-Propenoic acid, 1,5-dihydroxy-2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 325991-12-6

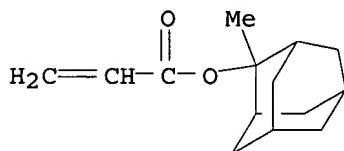
CMF C14 H20 O4



CM 2

CRN 249562-06-9

CMF C14 H20 O2



GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A polymer comprises at least one kind of monomer units selected from I-IV (R1 = H, Me; R2,3 = H, OH, etc.; R5,6 = H, OH, CO; R7-9 = H, Me; R10,11 = C1-8 hydrocarbon; R12-14 = H, OH, Me), with the proviso that when the polymer comprises monomer units of III. It must also contain at least another kind of monomer units selected from among those represented by general formula V (R15,16 = H, OH, COOH; R17 = OH, CO, COOH) or the like. This polymer is excellent not only in transparency, soly. in alkali and tight adhesion but also in etching resistance, thus being useful as the resin for photoresists.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 23 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 21

ACCESSION NUMBER: 2001:178377 CAPLUS

DOCUMENT NUMBER: 134:229705

TITLE: Chemically amplified photoresist compositions and process for the formation of stable photoresist patterns

INVENTOR(S): Takechi, Satoshi; Kotachi, Akiko; Nozaki, Koji; Yano, Ei; Watanabe, Keiji; Namiki, Takahisa; Igarashi, Miwa; Makino, Yoko; Takahashi, Makoto

PATENT ASSIGNEE(S): Fujitsu Limited, Japan

SOURCE: U.S., 55 pp., Cont.-in-part of U.S. 6,013,416.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6200725	B1	20010313	US 1997-969368	19971128
JP 09090637	A2	19970404	JP 1995-312722	19951130
JP 3297272	B2	20020702		
JP 09073173	A2	19970318	JP 1996-50264	19960307
US 6013416	A	20000111	US 1996-673739	19960627
US 5968713	A	19991019	US 1997-896833	19970718
US 2001003640	A1	20010614	US 2000-739259	20001219
US 6329125	B2	20011211		

PRIORITY APPLN. INFO.:

JP 1995-162287	A	19950628
JP 1995-178717	A	19950714
JP 1995-312722	A	19951130
JP 1996-50264	A	19960307
US 1996-673739	A2	19960627
JP 1996-320105	A	19961129
US 1997-969368	A3	19971128

IT 186586-03-8P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(prepn. of alkali-insol. polymers and copolymers for chem. amplified photoresist compn.)

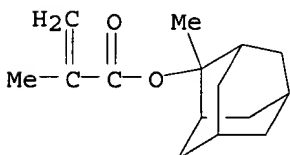
RN 186586-03-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2-propenal (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

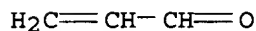
CMF C15 H22 O2



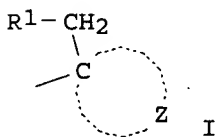
CM 2

CRN 107-02-8

CMF C3 H4 O



GI



AB An alkali-developable, chem. amplified photoresist compn. which comprises (1) an alkali-insol. polymer or copolymer comprising a structural unit contg. a protected alkali-sol. group in which unit a protective moiety of said protected alkali-sol. group contains a group represented by I (R1 = CH3, C2H5, Pr or i-Pr which may be substituted, Z = atoms necessary to complete an alicyclic hydrocarbon group along with a carbon atom) and (2) a photoacid generator capable of being decompd. upon exposure to a patterning radiation to produce an acid capable of causing cleavage of said protective moiety. The resist compn. can exhibit a high sensitivity (not more than 5 mJ/cm2) and therefore is particularly suitable for ArF lithog. and also can exhibit stable patterning properties.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 24 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 22
 ACCESSION NUMBER: 2001:760380 CAPLUS
 DOCUMENT NUMBER: 135:310933
 TITLE: Positive photoresists showing minimized dependency on pattern density for deep-UV photolithography
 INVENTOR(S): Kodama, Kunihiko; Sato, Kenichiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 77 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001290276	A2	20011019	JP 2000-383801	20001218
PRIORITY APPLN. INFO.:			JP 1999-358017	A 19991216
			JP 2000-28237	A 20000204

OTHER SOURCE(S): MARPAT 135:310933

IT 307976-27-8P 332877-30-2P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chem.-amplified deep-UV pos. photoresists contg. fluoroalkylsulfonate salts as photoacid generators)

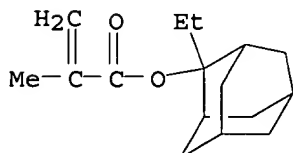
RN 307976-27-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

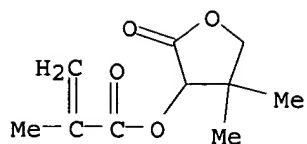
CMF C16 H24 O2



CM 2

CRN 156938-13-5

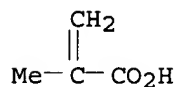
CMF C10 H14 O4



CM 3

CRN 79-41-4

CMF C4 H6 O2



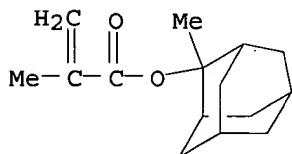
RN 332877-30-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

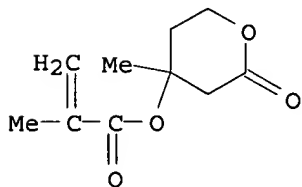
CMF C15 H22 O2



CM 2

CRN 177080-66-9

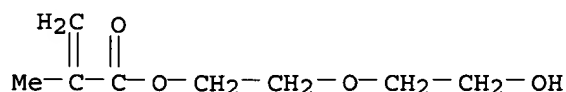
CMF C10 H14 O4



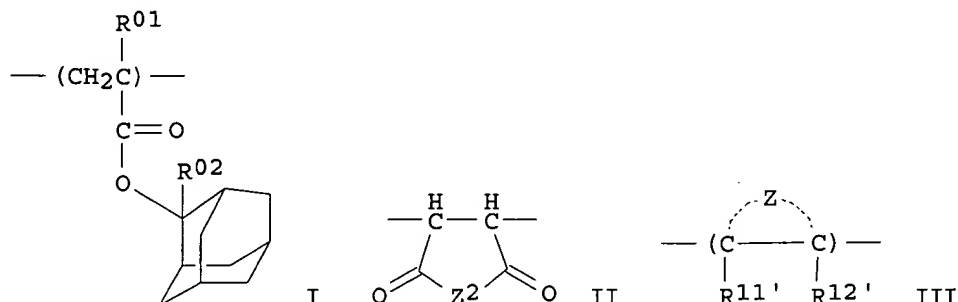
CM 3

CRN 2351-43-1

CMF C8 H14 O4



GI



AB The photoresists, for ultramicroolithog. utilizing .ltoreq.220-nm actinic rays (esp. ArF excimer lasers), comprise (A) photoacid generators RFSO₃-X+ [X = iodonium or sulfonium (Markush given); RF = C₁-10 fluoroalkyl] where .gtoreq.1 pair of them satisfy difference in carbon no. of RF moieties 2-8 and (B) C.gtoeq.6-alcyclic group-bearing acid-labile polymers. Suitable polymers consist of I [R₀₁ = H, C₁-4 alkyl; R₀₂ = C₁-4 alkyl; W = single bond, alkylene, (thio)ether, carbonyl, and/or ester] and [CH₂:CR'₀₁(CO₂WLC)] (Ra-f = H, C₁-4 alkyl essentially contg. single bond or C₁-4 alkylene; m, n = 0-3 integer; (m + n) = 2-6 integer). Other suitable polymers consist of (i) [CH(COXAR'₁)CH(COXAR'₂)] [R'₁, R'₂ = H, cyano, OH, etc.; X = O, S, NH, NHSO₂, NHSO₂NH; A = single bond, bivalent bridge] or II [Z₂ = O, NR'₃ [R'₃ = H, OH, OSO₂R'₄ [R'₄ = (halo)alkyl, cycloalkyl, camphor residue]]] and (ii) III [R'₁₁, R'₁₂ = H, cyano, halo, alkyl; Z = (substituted) alcyclic group]. The photoresists may contain N-contg. basic compds. and/or F- and/or silicone-contg. surfactants. The photoresists show high resoln. and excellent pattern profile.

L6 ANSWER 25 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 23
 ACCESSION NUMBER: 2001:736886 CAPLUS
 DOCUMENT NUMBER: 135:280515
 TITLE: (Meth)acrylate ester polymer for photoresist and photoresist composition
 INVENTOR(S): Arai, Takashi; Funaki, Katsunori; Sudo, Shinji
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

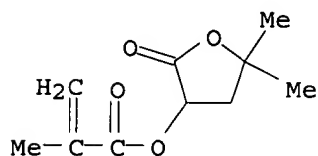
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001278919	A2	20011010	JP 2000-93286	20000330
IT	364063-50-3P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(photoresist contg. (meth)acrylate ester polymer involving acid-sensitive leaving group with good adhesion to substrate)				
RN	364063-50-3 CAPLUS				
CN	2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and				

tetrahydro-5,5-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 280552-09-2

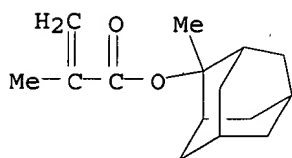
CMF C10 H14 O4



CM 2

CRN 177080-67-0

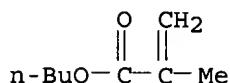
CMF C15 H22 O2



CM 3

CRN 97-88-1

CMF C8 H14 O2



AB The polymer involves repeating units substituted with acid-sensitive leaving group, another repeating units substituted with groups for enhancing adhesion to substrates, and [CH₂C(R₁)CO₂R₂] (R₁ = H, Me; R₂ = C₃-8 alkyl except tertiary alkyl). The photoresist compn. contains the polymer and a photosensitive acid-generating agent. The compn. shows good film-forming property assocd. with good alkali soly. and good adhesion to substrates. The compn. is applied on a substrate, exposed, and developed to give a pattern in semiconductor device fabrication.

L6 ANSWER 26 OF 76 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 24

ACCESSION NUMBER: 2001:726599 CAPLUS

DOCUMENT NUMBER: 135:280647

TITLE: Photosensitive resin compositions having high sensitivity and their color filters having patterns with uniform thickness

INVENTOR(S): Kadono, Tomonobu

PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan

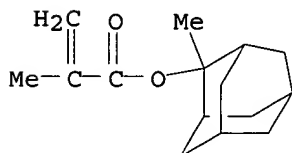
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

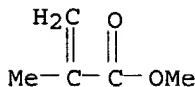
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

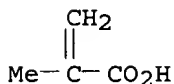
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001272780	A2	20011005	JP 2000-87908	20000328
IT	261631-25-8P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(photosensitive resin compns. with suppressed thermal shrinkage and discoloration for display color filters)				
RN	261631-25-8 CAPLUS				
CN	2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	177080-67-0				
CMF	C15 H22 O2				



CM 2
 CRN 80-62-6
 CMF C5 H8 O2



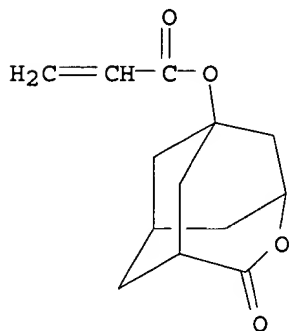
CM 3
 CRN 79-41-4
 CMF C4 H6 O2



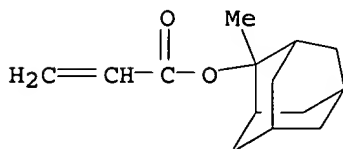
AB The photosensitive resin compns. contain (a) photopolymn. initiators, (b) monomers bearing unsatd. double bonds, polyfunctional acrylate monomers preferably, (c) epoxy resins, and (c) alicyclic compd.-contg. resins which are prepd. by polymg. monomers bearing at least vinyl groups and/or isopropenyl groups, preferably, one of the double-bonded C in these groups being linked to carboxyl groups. Discoloration which causes energy loss of UV and thermal shrinkage of the compns. have been suppressed.

ACCESSION NUMBER: 2001:644598 CAPLUS
 DOCUMENT NUMBER: 135:218729
 TITLE: Lactone ring-containing polymers and resin compositions for photoresists
 INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji; Shinoda, Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai, Akira
 PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries, Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001240625	A2	20010904	JP 2000-49549	20000225
IT	357340-58-0P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (prepn. of lactone ring-contg. polymers for photoresists)				
RN	357340-58-0	CAPLUS			
CN	2-Propenoic acid, 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with 5-oxo-4-oxatricyclo[4.3.1.1 ^{3,8}]undec-1-yl 2-propenoate and 4-oxotricyclo[3.3.1.1 ^{3,7}]dec-1-yl 2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	265999-35-7				
CMF	C13 H16 O4				

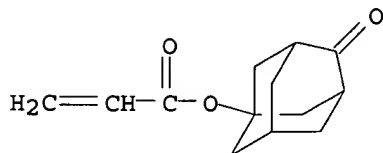


CM 2
 CRN 249562-06-9
 CMF C14 H20 O2

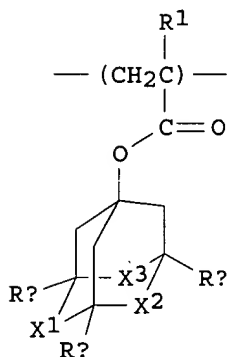


CM 3

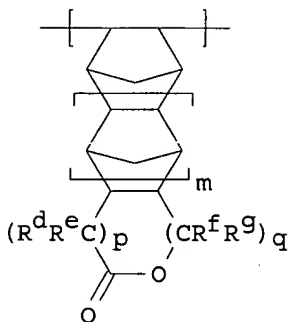
CRN 216582-09-1
CMF C13 H16 O3



GI



I



II

AB Photoresist compns. contain polymers contg. monomer units I and/or II (R1, Ra-Rg = H, Me; X1-X3 = CH2, CO2; at least one of X1-X3 is CO2; m, p, q = 0-2) and photoacid generators. The compns. show good adhesion to substrates such as Si and can precisely form fine patterns in semiconductor manufg.

L6 ANSWER 28 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 26
ACCESSION NUMBER: 2001:579376 CAPLUS
DOCUMENT NUMBER: 135:172987
TITLE: Positive-working chemically amplified photoresist composition containing carboxylic acids of low molecular weight
INVENTOR(S): Kodama, Kunihiko; Sato, Kenichiro; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

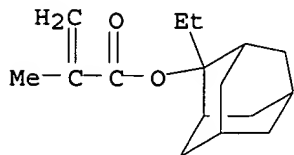
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT	JP 2001215709	A2	20010810	JP 2000-29257	20000207
	307976-27-8P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acid-sensitive resin in pos.-working chem. amplified photoresist compn.)				
RN	307976-27-8 CAPLUS				
CN	2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1.3,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl				

2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

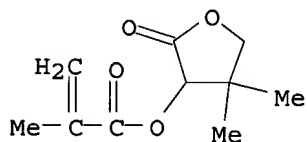
CMF C16 H24 O2



CM 2

CRN 156938-13-5

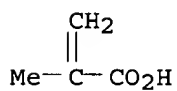
CMF C10 H14 O4



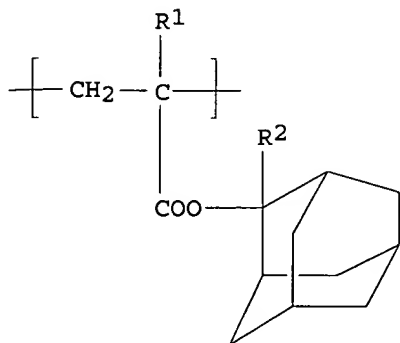
CM 3

CRN 79-41-4

CMF C4 H6 O2



GI



I

AB The title compn. contains an acid-sensitive resin which increases the dissoln. rate on reacting with an acid, and a photoacid generator, wherein .ltoreq.2,000 mol. wt. carboxylic acid is added to the compn. The resin

has repeating units I and $[-CH_2-C(R_1)(COO-W-Lc)-]$ ($R_1 = H, Me, Lc =$.gamma.-lactone deriv.; $R_2 = C1-4$ alkyl; $W =$ single bond, alkylene, ether, thioether, etc.). The resist compn., which the low mol. wt. carboxylic acids, provides the high sensitivity, the high resolu., the reduced residue of the development using the acid-sensitive resin.

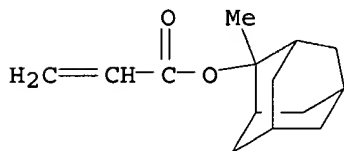
L6 ANSWER 29 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 27
 ACCESSION NUMBER: 2001:496392 CAPLUS
 DOCUMENT NUMBER: 135:99845
 TITLE: Positive-working photoresist composition containing alkali-soluble polymer with silyl group
 INVENTOR(S): Mizutani, Kazuyoshi; Yanami, Shoichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001:188349	A2	20010710	JP 2000-303876	20001003
PRIORITY APPLN. INFO.:			JP 1999-298606	A 19991020

IT 348129-27-1P 348129-35-1P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos.-working photoresist compn. contg. binder with silyl group, acid generator, org. base, and surfactant)
 RN 348129-27-1 CAPLUS
 CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2,5-furandione and trimethyl-2-propenylsilane (9CI) (CA INDEX NAME)

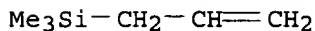
CM 1

CRN 249562-06-9
 CMF C14 H20 O2



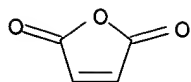
CM 2

CRN 762-72-1
 CMF C6 H14 Si



CM 3

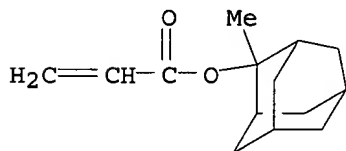
CRN 108-31-6
 CMF C4 H2 O3



RN 348129-35-1 CAPLUS
 CN 2-Propenoic acid, butyl ester, polymer with 2,5-furandione,
 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate and trimethyl-2-
 propenylsilane (9CI) (CA INDEX NAME)

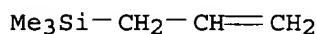
CM 1

CRN 249562-06-9
 CMF C14 H20 O2



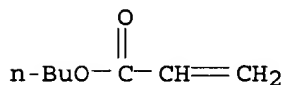
CM 2

CRN 762-72-1
 CMF C6 H14 Si



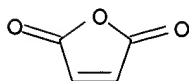
CM 3

CRN 141-32-2
 CMF C7 H12 O2



CM 4

CRN 108-31-6
 CMF C4 H2 O3



AB The compn. comprises (A) a binder resin having a repeating unit bearing a structure $(\text{CH}_2)_n\text{SiR}_1\text{R}_2\text{R}_3$ (R_1-3 = alkyl, haloalkyl, halo, alkoxy, trialkylsilyl, trialkylsilyloxy; $n = 0, 1$) and a repeating unit bearing a group which decomps. by the action of an acid and increases the soly. in an alk. developer at the side chain, (B) a compd. generating an acid by the action of an actinic ray or radiation, (C) a solvent dissolving A and

B, (D) an org. base compd., (E) .gtoreq.1 surfactant selected from a fluorosurfactant, a silicone surfactant, and a nonionic surfactant. The compn. shows high resoln. and gives patterns with rectangular cross section and is useful for manuf. of semiconductor device.

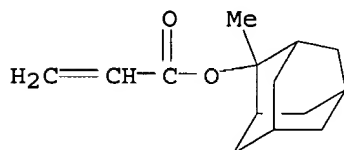
L6 ANSWER 30 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 28
 ACCESSION NUMBER: 2001:496391 CAPLUS
 DOCUMENT NUMBER: 135:99844
 TITLE: Positive-working photoresist composition containing vinyl copolymer with silyl group
 INVENTOR(S): Mizutani, Kazuyoshi; Yasunami, Shouichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001188348	A2	20010710	JP 2000-303875	20001003
PRIORITY APPLN. INFO.:			JP 1999-298606	A 19991020

IT **348129-27-1P**
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos.-working photoresist compn. contg. vinyl copolymer with silyl group and acid generator)
 RN 348129-27-1 CAPLUS
 CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2,5-furandione and trimethyl-2-propenylsilane (9CI) (CA INDEX NAME)

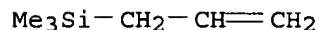
CM 1

CRN 249562-06-9
 CMF C14 H20 O2



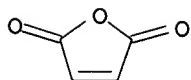
CM 2

CRN 762-72-1
 CMF C6 H14 Si

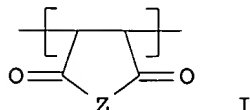


CM 3

CRN 108-31-6
 CMF C4 H2 O3



GI



AB The photoresist compn. comprises (A) a binder resin whose soly. in an alk. developer increases by the action of an acid and having repeating units $\text{CH}_2\text{CH}[(\text{CH}_2)_n\text{SiR}_1\text{R}_2\text{R}_3]$ ($\text{R}_1\text{-3}$ = alkyl, haloalkyl, halo, alkoxy, trialkylsilyl, trialkylsilyloxy; $n = 0,1$) $\text{CH}_2\text{CY}(\text{LCO}_2\text{Q})$ ($\text{Y} = \text{H, Me, cyano, Cl}$; $\text{L} = \text{bond, divalent linkage,}$; $\text{Q} = \text{C5-20 tert-alkyl, alkoxymethyl, alkoxyethyl, isobornyl}$) and I ($\text{Z} = \text{O, NR}_3$; $\text{R}_3 = \text{H, OH, alkyl, OSO}_2\text{R}_4$; $\text{R}_4 = \text{alkyl, trihalomethyl}$), (B) a compd. generating an acid by the action of an actinic ray or radiation, and (C) a solvent dissolving A and B. The compn. shows high resoln., less disappearance of rough pattern at the resoln. limit, and is useful for manuf. of semiconductor devices.

L6 ANSWER 31 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 29
 ACCESSION NUMBER: 2001:496390 CAPLUS
 DOCUMENT NUMBER: 135:99843
 TITLE: Radiation-sensitive polymer compositions with good dry etching resistance for semiconductor fabrication
 INVENTOR(S): Ishii, Hiroyuki; Doki, Katsuji; Kajita, Toru; Shimokawa, Tsutomu
 PATENT ASSIGNEE(S): JSR Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp. CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001188347	A2	20010710	JP 2000-137757	20000510
PRIORITY APPLN. INFO.:			JP 1999-296028	A 19991018

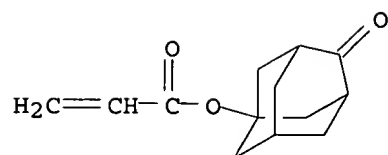
IT 348631-22-1P 348631-34-5P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (radiation-sensitive resists using alicyclic group-contg. acrylic polymers with good dry etching resistance)

RN 348631-22-1 CAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and 4-oxotricyclo[3.3.1.1^{3,7}]dec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 216582-09-1

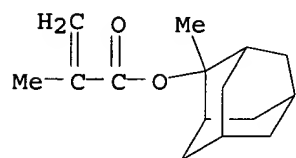
CMF C13 H16 O3



CM 2

CRN 177080-67-0

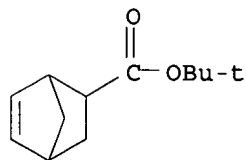
CMF C15 H22 O2



CM 3

CRN 154970-45-3

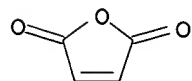
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



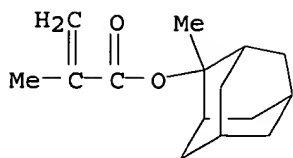
RN 348631-34-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

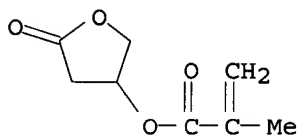
CMF C15 H22 O2



CM 2

CRN 130224-95-2

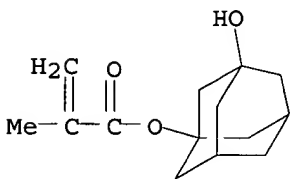
CMF C8 H10 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



AB The compns. comprise (A) acid-dissocg. group-contg. alkali-insol. polymers having CR1[C(:O)OAR2]CH2 and CR6[C(:O)OR7]CH2 (R1, R6 = H, C1-4 alkyl, alkoxy, or hydroxyalkyl; A = single bond, C1-4 alkylene; R2 = R3X1, R4:X2, R5.tplbond.X3; R3-R5 = C4-20 alicyclic group; X1-X3 = O- or N-contg. group; R7 = C4-20 alicyclic group, CR83; R8 = C1-4 alkyl or alicyclic group) and showing alkali. soly. by dissocn. of the acid-dissocg. groups and (B) acid generators. The compns. show good storage stability, high transparency for radiation, and high resoln.

L6 ANSWER 32 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 30
 ACCESSION NUMBER: 2001:356530 CAPLUS
 DOCUMENT NUMBER: 134:346479
 TITLE: Positive-working resist composition
 INVENTOR(S): Kodama, Kunihiro; Sato, Kenichiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001133978	A2	20010518	JP 1999-317147	19991108

OTHER SOURCE(S): MARPAT 134:346479

IT 307976-27-8 332877-30-2

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(pos.-working resist compn. contg.)

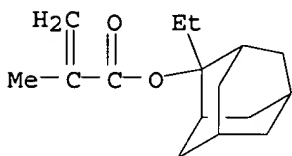
RN 307976-27-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

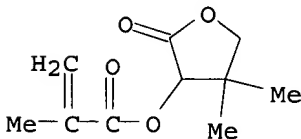
CMF C16 H24 O2



CM 2

CRN 156938-13-5

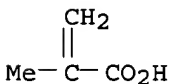
CMF C10 H14 O4



CM 3

CRN 79-41-4

CMF C4 H6 O2



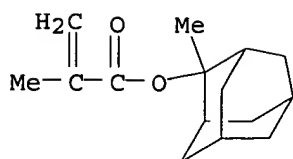
RN 332877-30-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

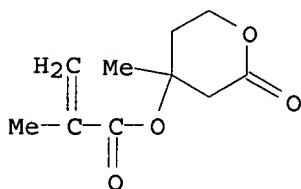
CMF C15 H22 O2



CM 2

CRN 177080-66-9

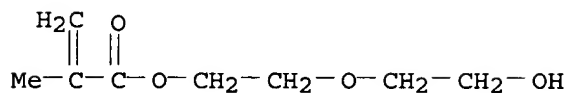
CMF C10 H14 O4



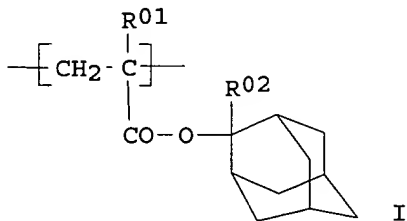
CM 3

CRN 2351-43-1

CMF C8 H14 O4



GI



I

AB The pos.-working resist compn. comprises (A) a resin which has repeating units I and $[H_2C-CR_01\{C(:O)OWLc\}]$ ($R_01 = H, C1-4$ alkyl, etc.; $R_02 = C1-4$ alkyl; $W =$ single bond, alkylene, etc.; $Lc =$ substituent) whose soly. rate increases in an alk. developer by reacting with an acid and (B) .gtoreq.1 photoacid generating a sulfonic acid. This pos.-working resist compn. showed sufficient sensitivity to a 193-nm ArF excimer laser.

L6 ANSWER 33 OF 76 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 31

ACCESSION NUMBER: 2001:280498 CAPLUS

DOCUMENT NUMBER: 134:318676

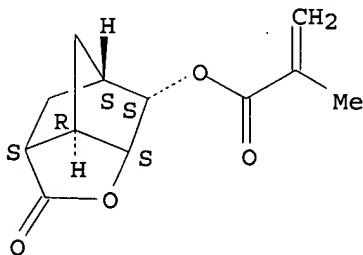
TITLE: Positive-working far-UV-sensitive photoresist composition containing acid-sensitive resin having lactone group

INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro

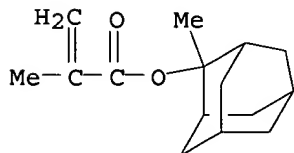
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001109154	A2	20010420	JP 1999-285762	19991006
IT	335163-68-3P, 2-Methyl-2-adamantylmethacrylate-Bicyclo[2.2.1]heptane-2-carboxylic acid, 7-hydroxy-, .gamma.-lactone, 5-exo-methacrylate ester copolymer				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (pos.-working far-UV-sensitive photoresist compn.)				
RN	335163-68-3	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, (3S,3aR,5S,6S,6aS)-hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	335163-67-2				
CMF	C12 H14 O4				

Relative stereochemistry.



CM 2
 CRN 177080-67-0
 CMF C15 H22 O2



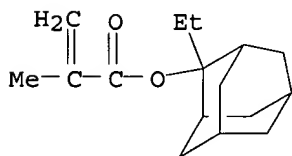
AB The title compn. contains a photoacid generator and a resin, which increases the soly. towards an alkali developer reacting with an acid, of a lactone repeating group. The compn., which contains the acid-sensitive resin having lactone group, shows the high sensitivity and provides the pattern of the high resoln., the good contact with substrate, and little edge roughness.

ACCESSION NUMBER: 2001:261353 CAPLUS
 DOCUMENT NUMBER: 134:303020
 TITLE: Far-UV sensitive positive-working chemically amplified photoresist composition for micro photolithography
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001100421	A2	20010413	JP 1999-280202	19990930
IT	334643-62-8P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(resin contg. quaternary ammonium salt group in far-UV sensitive pos.-working chem. amplified photoresist compn.)				
RN	334643-62-8 CAPLUS				
CN	1-Propanaminium, N,N,N-triethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, salt with trifluoromethanesulfonic acid (1:1), polymer with 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

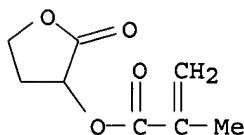
CM 1

CRN 209982-56-9
 CMF C16 H24 O2



CM 2

CRN 195000-66-9
 CMF C8 H10 O4



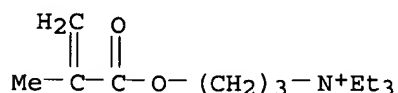
CM 3

CRN 334643-61-7
 CMF C13 H26 N O2 . C F3 O3 S

CM 4

CRN 334643-60-6

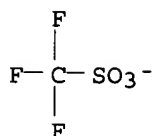
CMF C13 H26 N O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



AB The title compn. contains a photoacid generator and a resin increasing the soly. towards an alkali developer by reacting with an acid, wherein the resin has a quaternary ammonium salt group. The addn. of the acid-sensitive resin contg. quaternary ammonium salt group to the compn. provides improved development characteristics and eliminates rough edges on the pattern.

L6 ANSWER 35 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 33

ACCESSION NUMBER: 2001:143826 CAPLUS

DOCUMENT NUMBER: 134:200525

TITLE: Positive-working photoresist composition for far ultraviolet ray exposure

INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

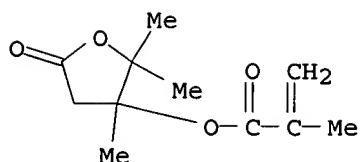
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001056557	A2	20010227	JP 1999-234240	19990820
IT	324771-00-8P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(far UV sensitive photoresist contg. acid generator, alkali-sol. resin, and surfactant)				
RN	324771-00-8	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with tetrahydro-2,2,3-trimethyl-5-oxo-3-furanyl				
	2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

CRN 324761-27-5

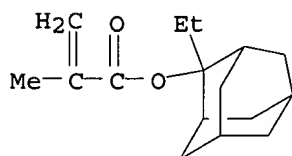
CMF C11 H16 O4



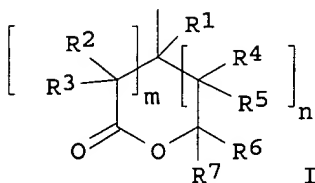
CM 2

CRN 209982-56-9

CMF C16 H24 O2



GI



AB The compn. comprises (A) a compd. generating acid by actinic ray or radiation, (B) a resin contg. I [R1 = H, C1-4 alkyl; R2-7 = H, (substituted) alkyl, cycloalkyl, alkenyl, .gtoreq.1 of R6 and R7 is not H, R6 and R7 may form a ring; m, n = 0, 1] as a repeating unit and whose sol. in alkali is increased by the action of acid, and (C) a fluoro- and/or silicone-type surfactant. The photoresist shows high sensitivity to far UV ray and generation of development defect and edge roughness is prevented.

L6 ANSWER 36 OF 76 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 34

ACCESSION NUMBER: 2001:142246 CAPLUS

DOCUMENT NUMBER: 134:200521

TITLE: Positive-working photoresist composition for far ultraviolet ray exposure

INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001056556	A2	20010227	JP 1999-234239	19990820

IT 324771-00-8P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

(far UV photoresist compn. contg. alkali-sol. resin and acid generator)

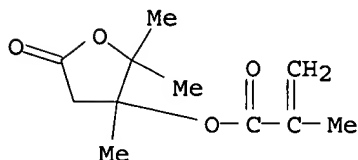
RN 324771-00-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with tetrahydro-2,2,3-trimethyl-5-oxo-3-furanyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-27-5

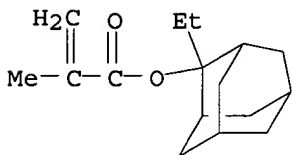
CMF C11 H16 O4



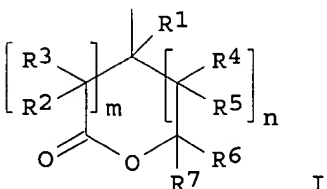
CM 2

CRN 209982-56-9

CMF C16 H24 O2



GI



AB The compn. comprises (A) a compd. generating acid by actinic ray or radiation, (B) a resin contg. I [R1 = H, C1-4 alkyl; R2-7 = H, (substituted) alkyl, cycloalkyl, alkenyl, .gtoreq.1 of R6 and R7 is not H, R6 and R7 may form a ring; m, n = 0, 1] as a repeating unit and whose sol. in alkali is increased by the action of an acid, and (C) a solvent contg. 60-90 wt.% (based on the total solvent) of .gtoreq.1 selected from propylene glycol monomethyl ether acetate, propylene glycol monomethyl ether propionate, Me 3-methoxypropionate, Et 3-methoxypropionate, Me 3-ethoxypropionate, and Et 3-ethoxypropionate. The photoresist shows high sensitivity, resoln., dry etching resistance and generation of development defect and edge roughness is prevented.

L6 ANSWER 37 OF 76 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:117245 CAPLUS
DOCUMENT NUMBER: 134:170832

DUPLICATE 35

TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser

INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

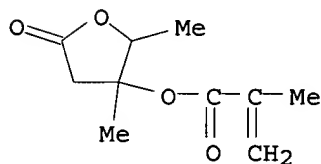
2/16/01

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001042535	A2	20010216	JP 1999-211370	19990726
IT	324761-26-4P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (alicyclic polymer in pos.-working photoresist compn.)				
RN	324761-26-4	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, 5-hydroxy-2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with 2-methyl-N-(methylsulfonyl)-2-propenamide and tetrahydro-2,3-dimethyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

CRN 324761-25-3

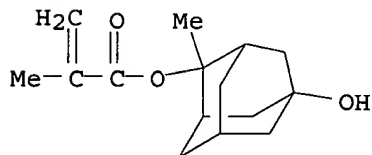
CMF C10 H14 O4



CM 2

CRN 324761-17-3

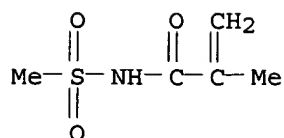
CMF C15 H22 O3



CM 3

CRN 208761-54-0

CMF C5 H9 N O3 S



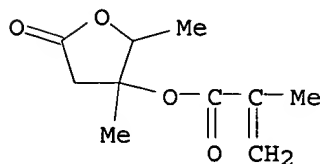
AB The title compn. contains a photoacid generator, a polymer having an alicyclic hydrocarbon group, and a surfactant, wherein the surfactant is fluoro or silicon-based. The compn. generates little faulty development and provides the good pattern profiles.

L6 ANSWER 38 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 36
 ACCESSION NUMBER: 2001:117244 CAPLUS
 DOCUMENT NUMBER: 134:170858
 TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser
 INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001042534	A2	20010216	JP 1999-211369	19990726
IT	324761-26-4P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(alicyclic polymer in pos.-working photoresist compn.)				
RN	324761-26-4	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, 5-hydroxy-2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with 2-methyl-N-(methylsulfonyl)-2-propenamide and tetrahydro-2,3-dimethyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

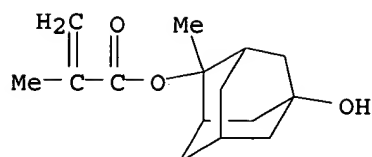
CM 1

CRN 324761-25-3
 CMF C10 H14 O4



CM 2

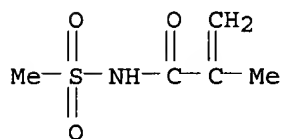
CRN 324761-17-3
 CMF C15 H22 O3



CM 3

CRN 208761-54-0

CMF C5 H9 N O3 S



AB The title compn. contains a photoacid generator, a polymer having an alicyclic hydrocarbon group, and a mixed solvent, wherein the solvent contains 2-heptanone. The compn. provides the good pattern profiles and the excellent storageability.

L6 ANSWER 39 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 37
 ACCESSION NUMBER: 2001:117243 CAPLUS
 DOCUMENT NUMBER: 134:170831
 TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser
 INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

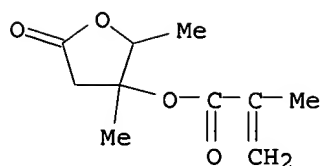
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001042533	A2	20010216	JP 1999-211368	19990726

IT **324761-26-4P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (alicyclic polymer in pos.-working photoresist compn.)
 RN 324761-26-4 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 5-hydroxy-2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2-methyl-N-(methylsulfonyl)-2-propenamide and tetrahydro-2,3-dimethyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-25-3

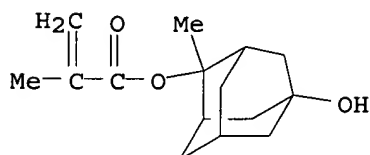
CMF C10 H14 O4



CM 2

CRN 324761-17-3

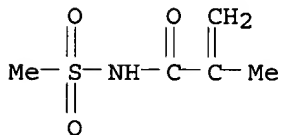
CMF C15 H22 O3



CM 3

CRN 208761-54-0

CMF C5 H9 N O3 S



AB The title compn. contains a photoacid generator, a polymer having an alicyclic hydrocarbon group, and a mixed solvent, wherein the solvent contains propylene glycol monomethyl ether acetate or propylene glycol monomethyl ether propionate. The compn. provides the evenly coated layer and the good storageability.

L6 ANSWER 40 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 38
 ACCESSION NUMBER: 2001:117242 CAPLUS
 DOCUMENT NUMBER: 134:170830
 TITLE: Positive-working photoresist composition suitable for exposed with ArF excimer laser
 INVENTOR(S): Sato, Kenichiro; Shirakawa, Hiroshi; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001042532	A2	20010216	JP 1999-211367	19990726

IT 324761-26-4P

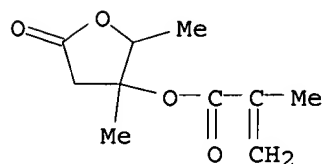
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (alicyclic polymer in pos.-working photoresist compn.)

RN 324761-26-4 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 5-hydroxy-2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2-methyl-N-(methylsulfonyl)-2-propenamide and tetrahydro-2,3-dimethyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 324761-25-3

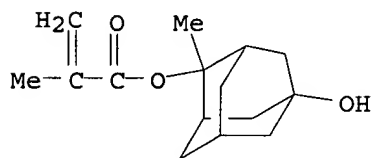
CMF C10 H14 O4



CM 2

CRN 324761-17-3

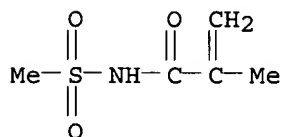
CMF C15 H22 O3



CM 3

CRN 208761-54-0

CMF C5 H9 N O3 S



AB The title compn. contains a photoacid generator, a polymer, and a mixed solvent contg. Et lactate and Bu acetate, wherein the polymer has an alicyclic hydrocarbon group. The compn. provides the evenly coated layer and the good storageability.

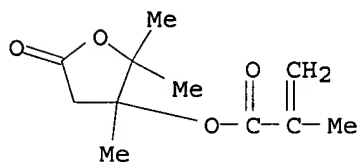
L6 ANSWER 41 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 39
 ACCESSION NUMBER: 2001:98660 CAPLUS
 DOCUMENT NUMBER: 134:170819
 TITLE: Positive-working photoresist composition for exposure to far ultraviolet light
 INVENTOR(S): Aogo, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001033971	A2	20010209	JP 1999-207958	19990722
IT	324771-00-8P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(pos.-working photoresist compn. for exposure to far UV light for formation of pattern with high resoln. and low edge roughness)				
RN	324771-00-8	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with tetrahydro-2,2,3-trimethyl-5-oxo-3-furanyl				
	2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

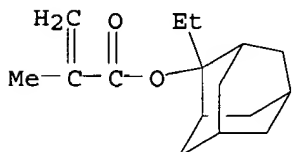
CM 1

CRN 324761-27-5
 CMF C11 H16 O4

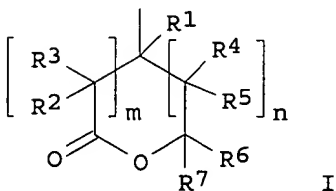


CM 2

CRN 209982-56-9
 CMF C16 H24 O2



GI



AB The title compn. contains (1) a compd. which generates acids by irradiation of actinic ray or radiation and (2) a polymer contg. a repeating unit represented by I [R₁ = H, (substituted) C₁-4 alkyl; R₂-7 = H, (substituted) alkyl, cycloalkyl, or alkenyl, where at least R₆ or R₇ is group other than H; R₆ and R₇ may connect to form ring; m, n = 0, 1; m = n

.noteq. 0]. The polymer decomp. by acids and increases in alkali soly.
The compn. is sensitive to far UV light, esp. to ArF excimer laser light,
and resist patterns with low edge roughness and high resolu. can be
offered.

L6 ANSWER 42 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 40
ACCESSION NUMBER: 2001:98658 CAPLUS
DOCUMENT NUMBER: 134:170817
TITLE: Positive-working photoresist composition for exposure
to far ultraviolet light
INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001033969	A2	20010209	JP 1999-203676	19990716

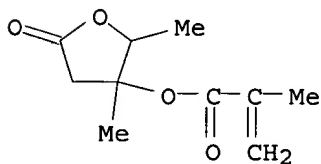
IT **324761-26-4P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos.-working photoresist compn. contg. polymer with alicyclic group for exposure to far UV light)

RN 324761-26-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 5-hydroxy-2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2-methyl-N-(methanesulfonyl)-2-propenamide and tetrahydro-2,3-dimethyl-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

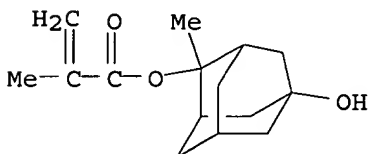
CM 1

CRN 324761-25-3
CMF C10 H14 O4



CM 2

CRN 324761-17-3
CMF C15 H22 O3



CM 3

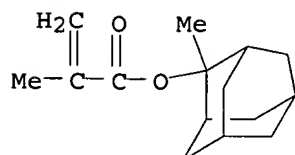
$$\begin{array}{ccccccc} & \text{O} & & \text{O} & \text{CH}_2 & & \\ & || & & || & || & & \\ \text{Me} - & \text{S} & - \text{NH} - & \text{C} & - \text{C} & - \text{Me} \\ & || & & & & & \\ & \text{O} & & & & & \end{array}$$
$$\begin{array}{c} \text{O} \\ \parallel \\ -\text{C}-\text{O}-\text{C}(\text{R}^1)-\text{Z}_A-\left[\text{OH}\right]_a \end{array}$$

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate and
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

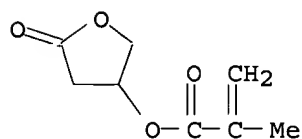
CMF C15 H22 O2



CM 2

CRN 130224-95-2

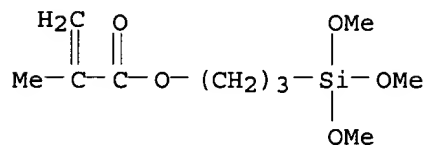
CMF C8 H10 O4



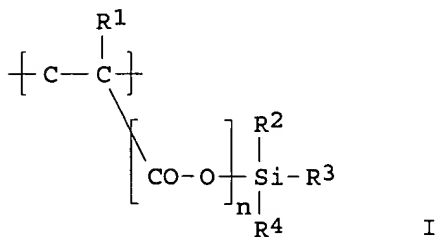
CM 3

CRN 2530-85-0

CMF C10 H20 O5 Si



GI

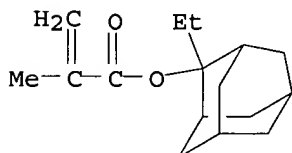


I

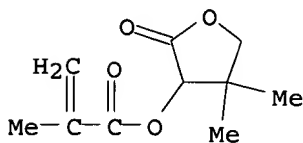
AB The title resin becomes sol. in an alkali upon reacting with an acid and contains repeating unit I (R1 = H, F, Cl, alkyl, silyl; R2-4 = F, Cl, alkyl, alkoxy; n = 0, 1). The resin provides the improved dry-etching resistance.

DOCUMENT NUMBER: 134:123583
 TITLE: Positive-working photoresist composition for far ultraviolet ray exposure
 INVENTOR(S): Sato, Kenichiro; Kawabe, Yasumasa
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

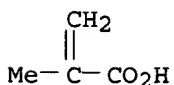
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001022072	A2	20010126	JP 1999-193603	19990707
IT	307976-27-8P 320779-35-9P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(photoresist compn. contg. acid generator, alkali-sol. resin., and solvent)				
RN	307976-27-8	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	209982-56-9				
CMF	C16 H24 O2				



CM 2
 CRN 156938-13-5
 CMF C10 H14 O4



CM 3
 CRN 79-41-4
 CMF C4 H6 O2



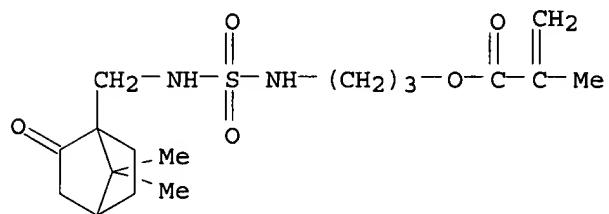
RN 320779-35-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[(7,7-dimethyl-2-oxobicyclo[2.2.1]hept-1-yl)methyl]amino]sulfonyl]amino]propyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 320779-34-8

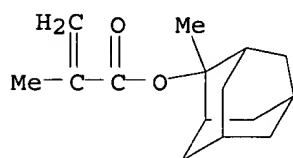
CMF C17 H28 N2 O5 S



CM 2

CRN 177080-67-0

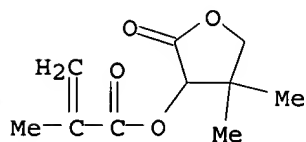
CMF C15 H22 O2



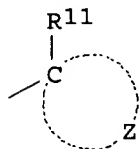
CM 3

CRN 156938-13-5

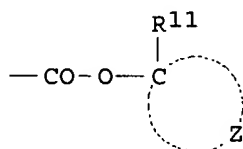
CMF C10 H14 O4



GI



I



II

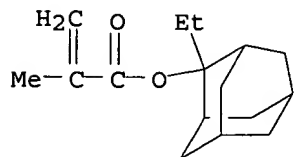
AB The title compn. contains (a) a compd. generating an acid by actinic ray or radiation irradiation, (b) a resin which has .gtoreq.1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the action of acid to increase the soly. to alkali, and (c) a mixed solvent contg. (1) heptanone and (2) .gamma.-butyrolactone, ethylene carbonate, and/or propylene carbonate. (i) a repeating unit having alkali-sol. groups protected with .gtoreq.1 group selected from alicyclic hydrocarbon structure-contg. groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R22-25 is alicyclic hydrocarbon). (ii) a repeating unit CH2CR1(CO2X1Lc) (R1 = H, halo, C1-4 straight-chain or branched alkyl; X1 = divalent linking group; Lc = lactone group). (iii) .gtoreq.1 repeating unit selected from CH2CR1(CO2H), CH2CR1X2OCR30R32CR31R33O(CR34R35CR36R37O)mR, CH2CR1(Z1R38AR39), and CH2CR1(CO2R40SO2OR41) [R1 = H, halo, C1-4 straight-chain or branched alkyl; R30-37 = H, (substituted) alkyl; R = H, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); m = 1-10; X2 = single bond, alkylene, cyclic alkylene, arylene, divalent group which is composed of .gtoreq.1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R38 = single bond, alkylene, arylene, divalent group composed of these groups; R40 = alkylene, arylene, divalent group composed of these groups; R39 = alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R41 = H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO2, SO2NHCO, NHCONHSO2, SO2NHCONH, OCONHSO2, SO2NHCO2, SO2NHSO2]. The resist shows high sensitivity toward far UV rays, esp. ArF excimer laser beams and the resist soln. exhibits improved storage stability.

L6 ANSWER 45 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 43

ACCESSION NUMBER: 2001:62630 CAPLUS
DOCUMENT NUMBER: 134:123582
TITLE: Positive-working photoresist composition for far ultraviolet ray exposure
INVENTOR(S): Sato, Kenichiro; Kawabe, Yasumasa
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

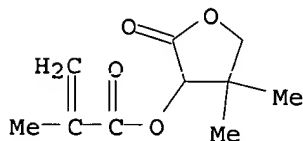
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001022071	A2	20010126	JP 1999-193602	19990707
IT	307976-27-8P 320779-35-9P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoresist compn. contg. acid generator, alkali-sol. resin., and solvent)				
RN	307976-27-8 CAPLUS				
CN	2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CRN 209982-56-9
CMF C16 H24 O2



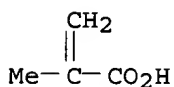
CM 2

CRN 156938-13-5
CMF C10 H14 O4



CM 3

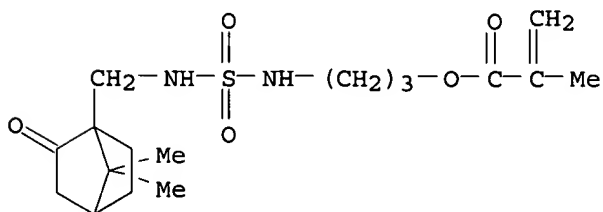
CRN 79-41-4
CMF C4 H6 O2



RN 320779-35-9 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-[[[(7,7-dimethyl-2-oxobicyclo[2.2.1]hept-1-yl)methyl]amino]sulfonyl]amino]propyl ester, polymer with 2-methyltricyclo[3.3.1.1.3,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

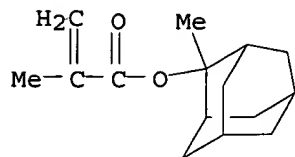
CM 1

CRN 320779-34-8
CMF C17 H28 N2 O5 S



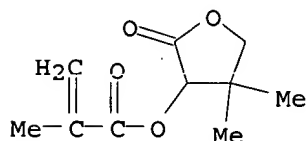
CM 2

CRN 177080-67-0
CMF C15 H22 O2

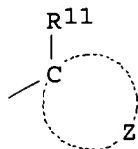


CM 3

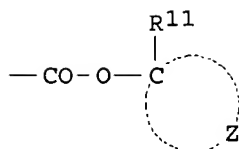
CRN 156938-13-5
CMF C10 H14 O4



GI



I



II

AB The title compn. contains (a) a compd. generating an acid by actinic ray or radiation irradiation, (b) a resin which has .gtoreq.1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the action of acid to increase the soly. to alkali, and (c) a mixed solvent contg. (1) propyleneglycol monomethyl ether acetate or propyleneglycol monomethyl ether propionate and (2) .gamma.-butyrolactone, ethylene carbonate, and/or propylene carbonate. (i) a repeating unit having alkali-sol. groups protected with .gtoreq.1 group selected from alicyclic hydrocarbon structure-contg. groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R22-25 is alicyclic hydrocarbon). (ii) a repeating unit CH2CR1(CO2X1Lc) (R1 = H, halo, C1-4 straight-chain or branched alkyl; X1 = divalent linking group; Lc = lactone group). (iii) .gtoreq.1 repeating unit selected from CH2CR1(CO2H), CH2CR1X2OCR30R32CR31R33O (CR34R35CR36R37O)mR, CH2CR1(Z1R38AR39), and CH2CR1(CO2R40SO2OR41) [R1 = H, halo, C1-4 straight-chain or branched alkyl; R30-37 = H, (substituted) alkyl; R = H, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); m = 1-10; X2 = single bond,

alkylene, cyclic alkylene, arylene, divalent group which is composed of .gtoreq.1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R38 = single bond, alkylene, arylene, divalent group composed of these groups; R40= alkylene, arylene, divalent group composed of these groups; R39 = alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R41 = H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO₂, SO₂NHCO, NHCONHSO₂, SO₂NHCONH, OCONHSO₂, SO₂NHCO₂, SO₂NHSO₂]. The resist shows high sensitivity toward far UV rays, esp. ArF excimer laser beams and the resist soln. exhibits improved storage stability.

L6 ANSWER 46 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 44
 ACCESSION NUMBER: 2001:62629 CAPLUS
 DOCUMENT NUMBER: 134:123581
 TITLE: Positive-working photoresist composition for far ultraviolet ray exposure
 INVENTOR(S): Sato, Kenichiro; Kawabe, Yasumasa
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001022070	A2	20010126	JP 1999-193601	19990707

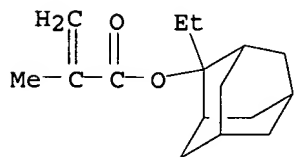
IT **307976-27-8P 320779-35-9P**
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photoresist compn. contg. acid generator, alkali-sol. resin., and solvent)

RN 307976-27-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

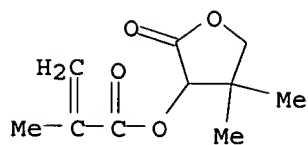
CM 1

CRN 209982-56-9
 CMF C16 H24 O2



CM 2

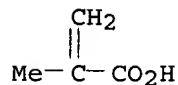
CRN 156938-13-5
 CMF C10 H14 O4



CM 3

CRN 79-41-4

CMF C4 H6 O2



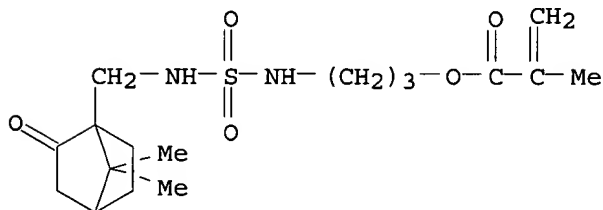
RN 320779-35-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[(7,7-dimethyl-2-oxobicyclo[2.2.1]hept-1-yl)methyl]amino]sulfonyl]amino]propyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 320779-34-8

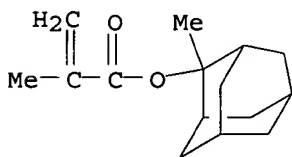
CMF C17 H28 N2 O5 S



CM 2

CRN 177080-67-0

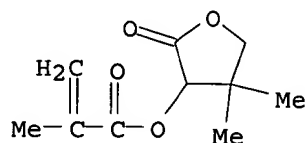
CMF C15 H22 O2



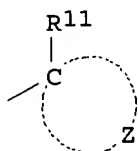
CM 3

CRN 156938-13-5

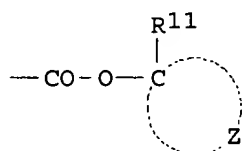
CMF C10 H14 O4



GI



I



II

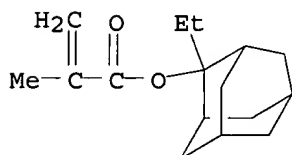
AB The title compn. contains (a) a compd. generating an acid by actinic ray or radiation irradiation, (b) a resin which has .gtoreq.1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the action of acid to increase the soly. to alkali, and (c) a mixed solvent contg. heptanone and .gtoreq.1 selected from Et lactate, propyleneglycol monomethylether, and ethoxyethyl propionate. (i) a repeating unit having alkali-sol. groups protected with .gtoreq.1 group selected from alicyclic hydrocarbon structure-contg. groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R22-25 is alicyclic hydrocarbon). (ii) a repeating unit CH2CR1(CO2X1Lc) (R1 = H, halo, C1-4 straight-chain or branched alkyl; X1 = divalent linking group; Lc = lactone group). (iii) .gtoreq.1 repeating unit selected from CH2CR1(CO2H), CH2CR1X2OCR3OR32CR31R33O (CR34R35CR36R37O)mR, CH2CR1(Z1R38AR39), and CH2CR1(CO2R40SO2OR41) [R1 = H, halo, C1-4 straight-chain or branched alkyl; R30-37 = H, (substituted) alkyl; R = H, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); m = 1-10; X2 = single bond, alkylene, cyclic alkylene, arylene, divalent group which is composed of .gtoreq.1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R38 = single bond, alkylene, arylene, divalent group composed of these groups; R40 = alkylene, arylene, divalent group composed of these groups; R39 = alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R41 = H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO2, SO2NHCO, NHCONHSO2, SO2NHCONH, OCONHSO2, SO2NHCO2, SO2NHSO2]. The resist shows high resolu. toward far UV rays, esp. ArF excimer laser beams, and improved edge roughness.

L6	ANSWER 47 OF 76	CAPLUS	COPYRIGHT 2002 ACS	DUPLICATE 45
ACCESSION NUMBER:	2001:46104 CAPLUS			
DOCUMENT NUMBER:	134:123570			
TITLE:	Positive-working photoresist composition for far ultraviolet ray exposure			
INVENTOR(S):	Sato, Kenichiro; Kawabe, Yasumasa			
PATENT ASSIGNEE(S):	Fuji Photo Film Co., Ltd., Japan			
SOURCE:	Jpn. Kokai Tokkyo Koho, 41 pp.			

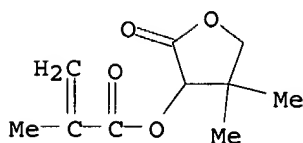
DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

CODEN: JKXXAF

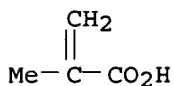
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001013686	A2	20010119	JP 1999-186607	19990630
IT	307976-27-8P 320779-35-9P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoresist compn. contg. acid generator, alkali-sol. resin., and solvent)				
RN	307976-27-8 CAPLUS				
CN	2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	209982-56-9				
CMF	C16 H24 O2				



CM 2
 CRN 156938-13-5
 CMF C10 H14 O4



CM 3
 CRN 79-41-4
 CMF C4 H6 O2



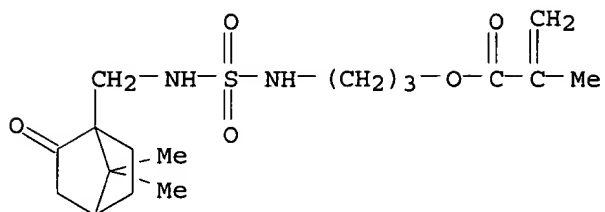
RN 320779-35-9 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-[[[(7,7-dimethyl-2-oxobicyclo[2.2.1]hept-1-yl)methyl]amino]sulfonyl]amino]propyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA

INDEX NAME)

CM 1

CRN 320779-34-8

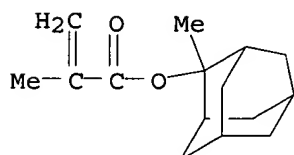
CMF C17 H28 N2 O5 S



CM 2

CRN 177080-67-0

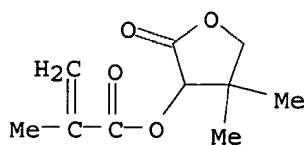
CMF C15 H22 O2



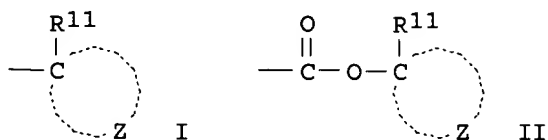
CM 3

CRN 156938-13-5

CMF C10 H14 O4



GI



AB The title compn. contains (a) a compd. generating an acid by actinic ray or radiation irradiation, (b) a resin which has .gtoreq.1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the action of acid to increase the soly. to alkali, and (c) a mixed solvent contg. propyleneglycol monomethylether acetate or propionate and .gtoreq.1 selected from Et lactate, propyleneglycol monomethylether, and ethoxyethyl

propionate. (i) a repeating unit having alkali-sol. groups protected with .gtoreq.1 group selected from alicyclic hydrocarbon structure-contg. groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R22-25 is alicyclic hydrocarbon). (ii) a repeating unit CH2CR1(CO2X1Lc) (R1 = H, halo, C1-4 straight-chain or branched alkyl; X1 = divalent linking group; Lc = lactone group). (iii) .gtoreq.1 repeating unit selected from CH2CR1(CO2H), CH2CR1X2OCR30R32CR31R33O(CR34R35CR36R37O)mR, CH2CR1(Z1R38AR39), and CH2CR1(CO2R40SO2OR41) [R1 = H, halo, C1-4 straight-chain or branched alkyl; R30-37 = H, (substituted) alkyl; R = H, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); m = 1-10; X2 = single bond, alkylene, cyclic alkylene, arylene, divalent group which is composed of .gtoreq.1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R38 = single bond, alkylene, arylene, divalent group composed of these groups; R40= alkylene, arylene, divalent group composed of these groups; R39 = alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R41 = H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO2, SO2NHCO, NHCONHSO2, SO2NHCONH, OCONHSO2, SO2NHCO2, SO2NHSO2]. The resist shows high sensitivity toward far UV rays, esp. ArF excimer laser beams and the resist soln. exhibits improved storage stability.

L6 ANSWER 48 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 46
 ACCESSION NUMBER: 2001:780439 CAPLUS
 DOCUMENT NUMBER: 135:304286
 TITLE: polymers of ester compounds for resist compositions and patterning
 INVENTOR(S): Hasegawa, Koji; Nishi, Tsunehiro; Kinsho, Takeshi; Watanabe, Takeru; Nakashima, Mutsuo; Tachibana, Seiichiro; Hatakeyama, Jun
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 38 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1148044	A1	20011024	EP 2001-303574	20010419
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002003537	A2	20020109	JP 2001-115209	20010413
JP 2002030114	A2	20020131	JP 2001-115142	20010413
US 2001044071	A1	20011122	US 2001-837378	20010419
US 2002004178	A1	20020110	US 2001-837219	20010419

PRIORITY APPLN. INFO.: JP 2000-119410 A 20000420
 OTHER SOURCE(S): MARPAT 135:304286

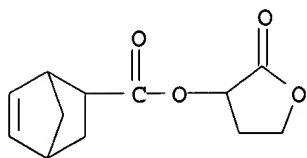
IT 366809-11-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymers of ester compds. for photoresist and patterning)
 RN 366809-11-2 CAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, tetrahydro-2-oxo-3-furanyl

ester, polymer with 2,5-furandione and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 264193-09-1

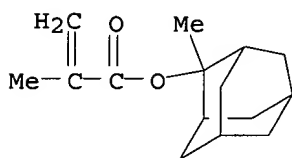
CMF C12 H14 O4



CM 2

CRN 177080-67-0

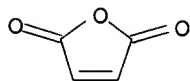
CMF C15 H22 O2



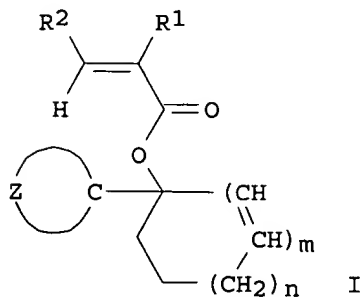
CM 3

CRN 108-31-6

CMF C4 H2 O3



GI



AB An ester compd. of the following formula (I) is provided wherein R1 is H, Me or CH₂CO₂R₃, R₃ is H, Me or CO₂R₃, R₃ is C1-C15 alkyl, Z is a divalent C2-C20 hydrocarbon group which forms a single ring or bridged ring with

the carbon atom and which may contain a hetero atom, m is 0 or 1, n is 0, 1, 2 or 3, and 2m+n = 2 or 3. Thus, 1-cyclohexylcyclopentyl acrylate 66.6, 2-oxooxolan-3-yl 2-norbornene-5-carboxylate 77.7 and maleic anhydride 34.3 g were polymd. to give a polymer at yield 45.3% as photoresist, showing resoln. 0.16 nm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 49 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 47

ACCESSION NUMBER: 2001:747251 CAPLUS

DOCUMENT NUMBER: 135:296190

TITLE: Chemically amplified positive resist composition

INVENTOR(S): Uetani, Yasunori; Yamada, Airi; Miya, Yoshiko; Takata, Yoshiyuki

PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1143299	A1	20011010	EP 2001-107747	20010402
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1316675	A	20011010	CN 2001-110230	20010402
US 2001044070	A1	20011122	US 2001-824227	20010403
PRIORITY APPLN. INFO.:			JP 2000-101868	A 20000404
			JP 2000-133328	A 20000502
			JP 2000-209505	A 20000711

IT 364736-27-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chem. amplified pos. resist compn. contg.)

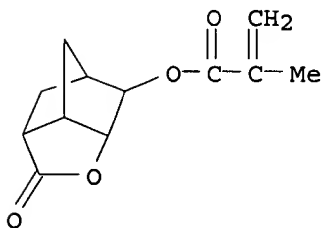
RN 364736-27-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 254900-07-7

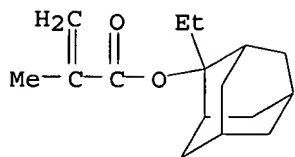
CMF C12 H14 O4



CM 2

CRN 209982-56-9

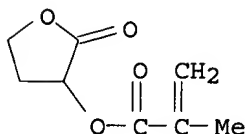
CMF C16 H24 O2



CM 3

CRN 195000-66-9

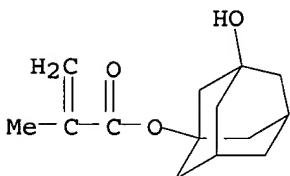
CMF C8 H10 O4



CM 4

CRN 115372-36-6

CMF C14 H20 O3



GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A chem. amplification type pos. resist compn. comprises an acid generating agent and a resin having polymeric units (A), (B) and (C). The polymeric unit (A) is an alicyclic lactone selected from polymeric units I and II (R1,2 = H, Me; and n = 1-3). The polymeric unit (B) is selected 3-hydroxy-1-adamantyl (meth)acrylate represented by III, IV (R3 = H, methyl; R4 = H, hydroxyl; R5,6 = H, C1-3 alkyl or hydroxyalkyl, etc.) and a unit derived from unsatd. dicarboxylic acid anhydride selected from maleic anhydride and itaconic anhydride and a polymeric unit of (.alpha.) .beta.-(meth)acryloyloxy-.gamma.-butyrolactone represented by V (R7 = H, Me). The polymeric unit (C) is the one which becomes alkali-sol. by cleavage of a part of groups by the action of an acid. The pos. resist compn. of this invention is excellent in balance of properties such as resoln., profile, sensitivity, dry etching resistance, adhesion, and the like.

REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

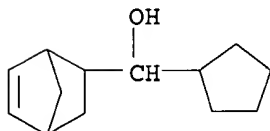
L6 ANSWER 50 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 48
 ACCESSION NUMBER: 2001:631979 CAPLUS
 DOCUMENT NUMBER: 135:187722
 TITLE: Photoresist compositions comprising novel copolymers
 INVENTOR(S): Barclay, George G.; Caporale, Stefan J.; Yueh, Wang;
 Mao, Zhibiao; Mattia, Joseph
 PATENT ASSIGNEE(S): Shipley Company L.L.C., USA
 SOURCE: Eur. Pat. Appl., 21 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1128213	A2	20010829	EP 2001-301613	20010222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001296663	A2	20011026	JP 2001-50681	20010226
PRIORITY APPLN. INFO.:			US 2000-185345P	P 20000226
			US 2000-567814	A 20000509

IT **355395-09-4P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photoresist compn. contg. photoacid labile acrylate and cyclic olefin)
 RN 355395-09-4 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, .alpha.-cyclopentylbicyclo[2.2.1]hept-2-ene-2-methanol and 2,5-furandione (9CI)
 (CA INDEX NAME)

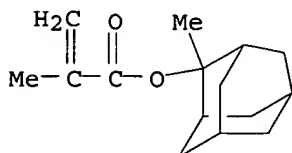
CM 1

CRN 355395-08-3
 CMF C13 H20 O



CM 2

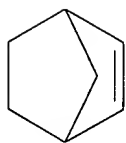
CRN 177080-67-0
 CMF C15 H22 O2



CM 3

CRN 498-66-8

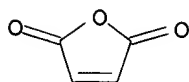
CMF C7 H10



CM 4

CRN 108-31-6

CMF C4 H2 O3



AB The present invention includes polymers and photoresist compns. that comprise the polymers as a resin binder component. Photoresists of the invention include chem.-amplified pos.-acting resists that can be effectively imaged at short wavelengths such as sub-200 nm, particularly 193 nm. Polymers of the invention suitably contain (1) photoacid labile groups that preferably contain an alicyclic moiety; (2) a polymd. electron-deficient monomer; and (3) a polymd. cyclic olefin moiety. Particularly preferred polymers of the invention are tetrapolymers or pentapolymers, preferably with differing polymd. norbornene units.

L6 ANSWER 51 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 49
ACCESSION NUMBER: 2001:581558 CAPLUS
DOCUMENT NUMBER: 135:160152
TITLE: Chemically amplified positive resist composition
INVENTOR(S): Nakanishi, Junji; Takata, Yoshiyuki
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1122604	A2	20010808	EP 2001-101672	20010129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001215704	A2	20010810	JP 2000-21687	20000131
US 2001016298	A1	20010823	US 2001-770212	20010129
CN 1312489	A	20010912	CN 2001-102197	20010131

PRIORITY APPLN. INFO.: JP 2000-21687 A 20000131

IT 348631-34-5P, .beta.-Methacryloyloxy-.gamma.-Butyrolactone-3-Hydroxy-1-adamantyl methacrylate-2-methyl-2-adamantyl methacrylate copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Chem. amplified pos. resist compn.)

RN 348631-34-5 CAPLUS

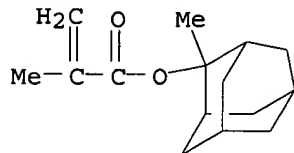
CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX

NAME)

CM 1

CRN 177080-67-0

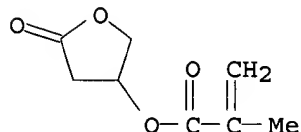
CMF C15 H22 O2



CM 2

CRN 130224-95-2

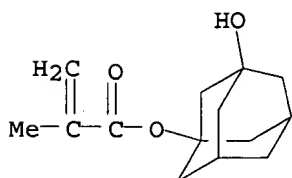
CMF C8 H10 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



AB A chem. amplified pos. resist compn. comprises a resin which, per se, is insol. or slightly sol. in alkali but becomes sol. in alkali due to an action of acid, and has a polymeric unit derived from 3-hydroxy-1-adamantyl(meth)acrylate and a polymeric unit derived from .beta.-(meth)acryloyloxy-.gamma.-butyrolactone wherein the lactone ring may optionally be substituted by alkyl and a photoacid. The chem. amplified pos. resist compn. is capable of giving a resist film excellent in adhesion to a substrate and excellent in various resist performance characteristics such as dry etching resistance, sensitivity and resolu.

L6 ANSWER 52 OF 76 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 50

ACCESSION NUMBER: 2001:261176 CAPLUS

DOCUMENT NUMBER: 134:287866

TITLE: Positive-working resist composition

INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiko; Aoi, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 114 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1091248	A1	20010411	EP 2000-121277	20001006
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001109153	A2	20010420	JP 1999-285761	19991006
JP 2001264985	A2	20010928	JP 2000-80519	20000322
PRIORITY APPLN. INFO.:			JP 1999-285761	A 19991006
			JP 2000-80519	A 20000322

IT 307976-27-8P 332877-30-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acid-decomposable resin in pos.-working resist compn.)

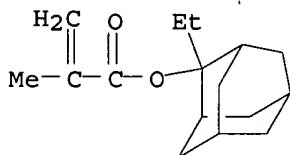
RN 307976-27-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

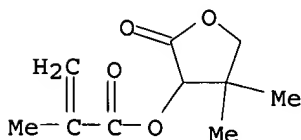
CMF C16 H24 O2



CM 2

CRN 156938-13-5

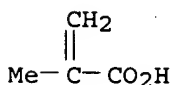
CMF C10 H14 O4



CM 3

CRN 79-41-4

CMF C4 H6 O2



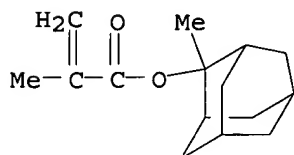
RN 332877-30-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

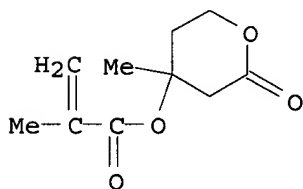
CMF C15 H22 O2



CM 2

CRN 177080-66-9

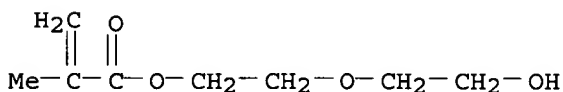
CMF C10 H14 O4



CM 3

CRN 2351-43-1

CMF C8 H14 O4



AB The present invention provides a high sensitivity chem. amplified pos.-working resist compn. which eliminates edge roughness on pattern and provides an excellent resist pattern profile. A novel pos.-working resist compn. is provided comprising (A) a resin contg. an alkali-sol. group protected by at least one of moieties contg. alicyclic hydrocarbon group and having a monomer component content of 5% or less of the total pattern area as detd. by gel permeation chromatog. (GPC), which increases in its soln. velocity with respect to an alk. developer by the action of an acid and (B) a compd. which is capable of generating an acid by irradiation with an active ray or radiation.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 53 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 51
 ACCESSION NUMBER: 2001:208019 CAPLUS
 DOCUMENT NUMBER: 134:245232
 TITLE: Radiation-sensitive resin composition as

chemically-amplified photoresist with superior dry etching resistance and resolution for deep UV lithography

INVENTOR(S): Douki, Katsuji; Murata, Kiyoshi; Ishii, Hiroyuki; Kajita, Toru; Shimokawa, Tsutomu

PATENT ASSIGNEE(S): JSR Corporation, Japan

SOURCE: Eur. Pat. Appl., 52 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1085379	A1	20010321	EP 2000-120000	20000914
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001109157	A2	20010420	JP 1999-291291	19991013
JP 2001209181	A2	20010803	JP 2000-277966	20000913
PRIORITY APPLN. INFO.:			JP 1999-264110	A 19990917
			JP 1999-291291	A 19991013
			JP 1999-325222	A 19991116

IT **330576-52-8P**

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(copolymer compns. as chem.-amplified photoresist with superior dry etching resistance, sensitivity and resoln. properties for deep UV lithog.)

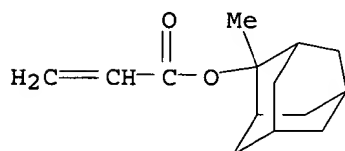
RN 330576-52-8 CAPLUS

CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 2,5-furandione and 1,2,3,4,4a,5,8,8a-octahydro-1,4:5,8-dimethanonaphthalen-2-ol (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

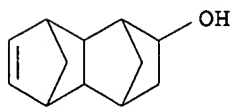
CMF C14 H20 O2



CM 2

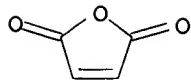
CRN 7388-87-6

CMF C12 H16 O



CM 3

CRN 108-31-6
CMF C4 H2 O3



GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A radiation-sensitive resin compn. comprises (a) a resin contg. an acid-dissociable group which is insol. or scarcely sol. in alkali and becomes alkali sol. when the acid-dissociable group dissocs., comprising the following recurring unit I, recurring unit II, and at least one of the recurring units III and IV (A, B = H, C1-4-alkyl; X, Y = H, monovalent O or N contg. polar group, X joining together with Y may form dicarboxylic anhydride group; n = 0-2; R1 = H, CH3; R2 = CR33; R3 = monovalent alicyclic hydrocarbon group having 4-20 carbon atoms, its deriv., C1-4-alkyl; R4 = divalent hydrocarbon group having alicyclic skeleton contg. 3-15 carbons), (b) a photoacid generator, (c) an acid diffusion controller, and (d) alicyclic additive. The radiation-sensitive resin compn. is suitable for use as a chem.-amplified resist showing sensitivity to active radiation such as deep UV rays represented by a KrF excimer laser or ArF excimer laser, exhibiting superior dry etching resistance without being affected by types of etching gas, having high radiation transmittance, exhibiting excellent basic characteristics as a resist such as sensitivity, resoln., and pattern shape, possessing excellent storage stability as a compn., and exhibiting sufficient adhesion to substrates.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 54 OF 76 USPATFULL

ACCESSION NUMBER: 2001:212077 USPATFULL

TITLE: Novel ester compounds, polymers, resist compositions and patterning process

INVENTOR(S): Hasegawa, Koji, Niigata-ken, Japan
Nishi, Tsunehiro, Niigata-ken, Japan
Kinsho, Takeshi, Niigata-ken, Japan
Watanabe, Takeru, Niigata-ken, Japan
Nakashima, Mutsuo, Niigata-ken, Japan
Tachibana, Seiichiro, Niigata-ken, Japan
Hatakeyama, Jun, Niigata-ken, Japan

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd, Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044071	A1	20011122
APPLICATION INFO.:	US 2001-837378	A1	20010419 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-119410	20000420
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	

NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 1476
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 366809-11-2P

(polymers of ester compds. for photoresist and patterning)

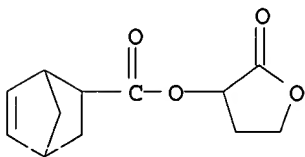
RN 366809-11-2 USPTAFULL

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, tetrahydro-2-oxo-3-furanyl ester, polymer with 2,5-furandione and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 264193-09-1

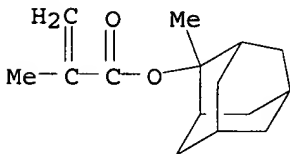
CMF C12 H14 O4



CM 2

CRN 177080-67-0

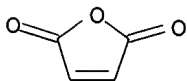
CMF C15 H22 O2



CM 3

CRN 108-31-6

CMF C4 H2 O3



AB An ester compound of the following formula (1) is provided. ##STR1##

R^{sup.1} is H, methyl or CH₂CO₂R^{sup.3}, R^{sup.2} is H, methyl or CO₂R^{sup.3}, R^{sup.3} is C₁₋₁₅ alkyl, Z is a divalent C₂₋₂₀ hydrocarbon group which forms a single ring or bridged ring with the carbon atom and which may contain a hetero atom, m is 0 or 1, n is 0, 1, 2 or 3, and 2m+n=2 or 3. A resist composition comprising as the base resin a polymer resulting from the ester compound is sensitive to high-energy radiation, has excellent sensitivity and resolution, and is suited for micropatterning using electron beams or deep-UV.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 55 OF 76 USPATFULL

ACCESSION NUMBER: 2001:212076 USPATFULL
TITLE: Chemically amplified positive resist composition
INVENTOR(S): Uetani, Yasunori, Osaka, Japan
Yamada, Airi, Osaka, Japan
Miya, Yoshiko, Muko-shi, Japan
Takata, Yoshiyuki, Osaka, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044070	A1	20011122
APPLICATION INFO.:	US 2001-824227	A1	20010403 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-101868	20000404
	JP 2000-133328	20000502
	JP 2000-209505	20000711

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747

NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
LINE COUNT: 894

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

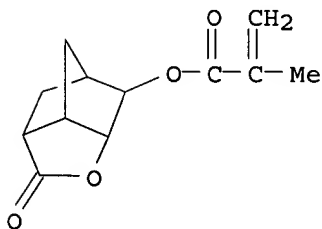
IT 364736-27-6P, 2-Ethyl-2-adamantyl methacrylate-3-hydroxy-1-adamantyl methacrylate-5-methacryloyloxy-2,6-norbornanecarbolactone-.alpha.-methacryloyloxy-.gamma.-butyrolactone copolymer (chem. amplified pos. resist compn. contg.)

RN 364736-27-6 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

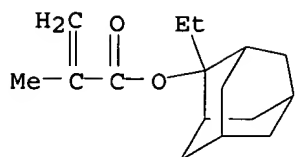
CM 1

CRN 254900-07-7
CMF C12 H14 O4



CM 2

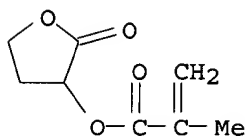
CRN 209982-56-9
CMF C16 H24 O2



CM 3

CRN 195000-66-9

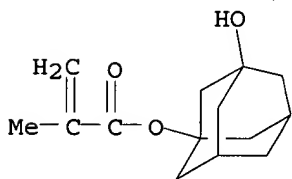
CMF C8 H10 O4



CM 4

CRN 115372-36-6

CMF C14 H20 O3



AB A chemical amplification type positive resist composition excellent in balance of properties such as resolution, profile, sensitivity, dry etching resistance, adhesion and the like which comprises a resin which has the following polymeric units (A), (B) and (C); and an acid generating agent.

(A): At least one polymeric unit of an alicyclic lactone selected from polymeric units represented by the following formulae (Ia) and (Ib):
##STR1##

(B): At least one polymeric unit selected from a polymeric unit of 3-hydroxy-1-adamantyl (meth)acrylate represented by the following formula (II), a polymeric unit of a combination of a unit represented by the following formula (III) and a unit derived from unsaturated dicarboxylic acid anhydride selected from maleic anhydride and itaconic anhydride and a polymeric unit of (.alpha.) .beta. -(meth)acryloyloxy-.gamma.-butyrolactone represented by the following formula (IV):
##STR2##

(C) A polymeric unit which becomes alkali-soluble by cleavage of a part of groups by the action of an acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 56 OF 76 USPATFULL

ACCESSION NUMBER: 2001:139256 USPATFULL

TITLE: Chemically amplified positive resist composition
 INVENTOR(S): Nakanishi, Junji, Kyoto-shi, Japan
 Takata, Yoshiyuki, Osaka, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001016298	A1	20010823
APPLICATION INFO.:	US 2001-770212	A1	20010129 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-21687	20000131
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
LINE COUNT:	591	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 348631-34-5P, .beta.-Methacryloyloxy-.gamma.-Butyrolactone-3-Hydroxy-1-adamantyl methacrylate-2-methyl-2-adamantyl methacrylate copolymer
 (Chem. amplified pos. resist compn.)

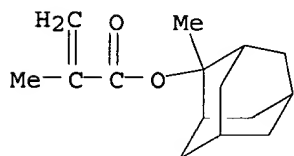
RN 348631-34-5 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

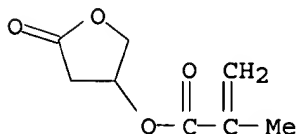
CMF C15 H22 O2



CM 2

CRN 130224-95-2

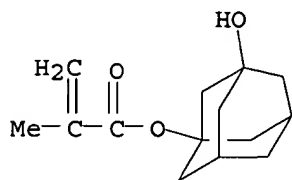
CMF C8 H10 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



AB A chemically amplified positive resist composition capable of giving a resist film excellent in adhesion to a substrate;

excellent in various resist performance characteristics such as dry etching resistance, sensitivity and resolution; and comprising

a resin (X) which

per se, is insoluble or slightly soluble in alkali but becomes soluble in alkali due to an action of acid,

and has a polymeric unit (a) derived from 3-hydroxy-1-adamantyl(meth)acrylate and a polymeric unit (b) derived from .beta.-(meth)acryloyloxy-.gamma.-butyrolactone wherein the lactone ring may optionally be substituted by alkyl; and an acid generating agent (Y).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 57 OF 76 USPATFULL

ACCESSION NUMBER: 2001:91491 USPATFULL

TITLE: Chemically amplified resist compositions and process for the formation of resist patterns

INVENTOR(S): Takechi, Satoshi, Kawasaki-shi, Japan
 Kotachi, Akiko, Kawasaki-shi, Japan
 Nozaki, Koji, Kawasaki-shi, Japan
 Yano, Ei, Kawasaki-shi, Japan
 Watanabe, Keiji, Kawasaki-shi, Japan
 Namiki, Takahisa, Kawasaki-shi, Japan
 Igarashi, Miwa, Kawasaki-shi, Japan
 Makino, Yoko, Kawasaki-shi, Japan
 Takahashi, Makoto, Kawasaki-shi, Japan

PATENT ASSIGNEE(S): FUJITSU LIMITED, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001003640	A1	20010614
	US 6329125	B2	20011211
APPLICATION INFO.:	US 2000-739259	A1	20001219 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-969368, filed on 28 Nov 1997, GRANTED, Pat. No. US 6200725 Continuation-in-part of Ser. No. US 1996-673739, filed on 27 Jun 1996, GRANTED, Pat. No. US 6013416		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-178717	19950714
	JP 1995-162287	19950628
	JP 1995-312722	19951130
	JP 1996-50264	19960307
	JP 1996-320105	19961129

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

ARMSTRONG, WESTERMAN, HATTORI,, MCLELAND & NAUGHTON,

LLP, 1725 K STREET, NW, SUITE 1000, WASHINGTON, DC,
20006

NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 4388

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 186585-94-4P 186586-03-8P

(chem. amplification resist compn.)

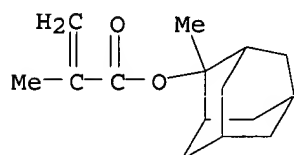
RN 186585-94-4 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 3-ethenyldihydro-2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

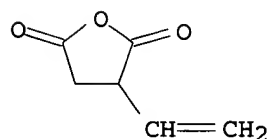
CMF C15 H22 O2



CM 2

CRN 39739-64-5

CMF C6 H6 O3



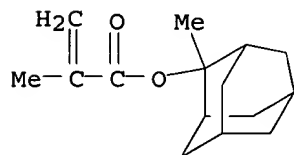
RN 186586-03-8 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 2-propenal (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

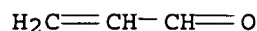
CMF C15 H22 O2



CM 2

CRN 107-02-8

CMF C3 H4 O



AB Alkali-developable, chemically amplified resist composition which comprises an alkali-insoluble compound having a structural unit containing a protected alkali-soluble group in which unit a protective moiety of said protected alkali-soluble group contains an alicyclic hydrocarbon group having bonded to a carbon atom thereof a --CH.sub.2--R.sub.1' group wherein R.sub.1' is methyl, ethyl, propyl or isopropyl, and said alkali-soluble group is cleaved upon action of an acid generated from a photoacid generator used in combination with said compound, thereby releasing said protective moiety from the alkali-soluble group and converting said compound to an alkali-soluble one, and a photoacid generator capable of being decomposed upon exposure to a patterning radiation to thereby produce an acid capable of causing cleavage of said protective moiety. The resist composition can exhibit a high sensitivity (not more than 5 mJ/cm.sup.2) and therefore is particularly suitable for ArF lithography and also can exhibit stable patterning properties.

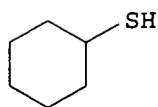
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 58 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 52
 ACCESSION NUMBER: 2001:803939 CAPLUS
 DOCUMENT NUMBER: 136:93382
 TITLE: Effect of end group structures of methacrylate polymers on ArF photoresist performances
 AUTHOR(S): Momose, Hikaru; Wakabayashi, Shigeo; Fujiwara, Tadayuki; Ichimura, Kiyoshi; Nakauchi, Jun
 CORPORATE SOURCE: Corporate Research Laboratories, Mitsubishi Rayon Co., Ltd., Otake, Hiroshima, 739-0693, Japan
 SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2001), 4345(Pt. 2, Advances in Resist Technology and Processing XVIII), 695-702
 CODEN: PSISDG; ISSN: 0277-786X
 PUBLISHER: SPIE-The International Society for Optical Engineering
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **386705-43-7**
 RL: CAT (Catalyst use); USES (Uses)
 (photoresist; relationship between sensitivity of ArF photoresist and end-group of hydroxybutyrolactone methacrylate and methyladamantyl methacrylate copolymer)
 RN 386705-43-7 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, telomer with cyclohexanethiol and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 1569-69-3

CMF C6 H12 S

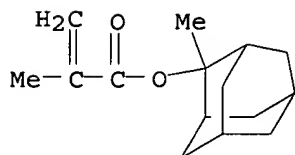


CM 2

CRN 195000-69-2
CMF (C15 H22 O2 . C8 H10 O4)x
CCI PMS

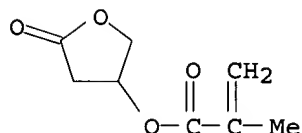
CM 3

CRN 177080-67-0
CMF C15 H22 O2



CM 4

CRN 130224-95-2
CMF C8 H10 O4



AB The relation between the sensitivity of ArF photoresist and the end group structures of copolymers consisting of .beta.-hydroxy-.gamma.-butyrolactone methacrylate (HGBMA) and 2-methyl-2-adamantyl methacrylate (MadMA) was studied. The sensitivity is strongly dependent on the kind and amt. of end groups. The copolymer with relatively nonpolar end group structure has higher sensitivity than that with polar end group structure, and the sensitivity of copolymer with end groups of methylisobutyrate and 1-octylthio moieties showed .apprx.3 times higher than that of copolymer with end groups of isobutyronitrile and 2-hydroxyethylthio moieties. The difference of sensitivity among these copolymers was discussed from the view point of the change of development rate attributed to the amt. of carboxylic acid groups formed in the resist film by exposure of 193nm light.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 59 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 53
ACCESSION NUMBER: 2000:877012 CAPLUS
DOCUMENT NUMBER: 134:63889
TITLE: Far-UV positive-working photoresist composition
INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiko; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

JP 2000347409 A2 20001215 JP 1999-158695 19990604

IT **312620-58-9P**

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(far-UV pos.-working photoresist compn. from)

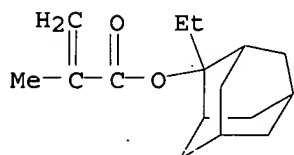
RN 312620-58-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

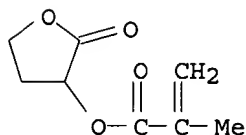
CMF C16 H24 O2



CM 2

CRN 195000-66-9

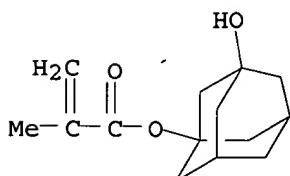
CMF C8 H10 O4



CM 3

CRN 115372-36-6

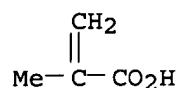
CMF C14 H20 O3



CM 4

CRN 79-41-4

CMF C4 H6 O2



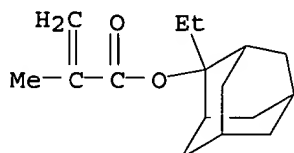
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The far-UV pos.-working photoresist compn. comprises a photoacid represented by I or II (R1-5 = H, alkyl, etc.; p, q, n1 = 1-5; m, n = 0-5; X = counter ion) and a resin which has repeating unit of III (Rb1-b4 = substituent) and increases its soly. in an alk. developer upon reaction with an acid. This photoresist compn. was particularly suited for .ltoreq.220.nu.m exposure.

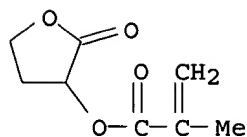
L6 ANSWER 60 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 54
 ACCESSION NUMBER: 2000:877011 CAPLUS
 DOCUMENT NUMBER: 134:63888
 TITLE: Positive-working chemical amplification photoresist composition for far-ultraviolet ray exposure
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000347408	A2	20001215	JP 1999-158693	19990604
IT	312620-58-9P				
	RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (pos.-working chem. amplification photoresist compn. for far-UV ray exposure)				
RN	312620-58-9	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	209982-56-9				
CMF	C16 H24 O2				



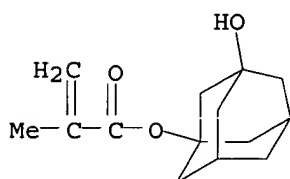
CM 2

CRN 195000-66-9
CMF C8 H10 O4



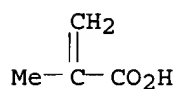
CM 3

CRN 115372-36-6
CMF C14 H20 O3

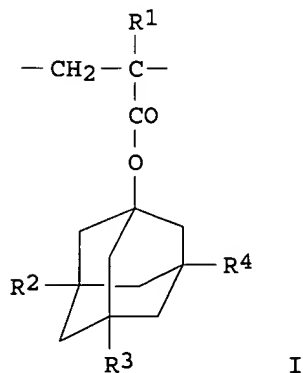


CM 4

CRN 79-41-4
CMF C4 H6 O2



GI



AB A pos.-working photoresist contg. (A) a compd. generating an acid upon irradiation with active ray or radioactive ray, (B) a resin having a repeating unit (I; R¹ = H, halo, C1-4 linear or branched alkyl; R² - R⁴ = H or OH, provided that at least one of R² - R⁴ is OH) and decomp. upon reaction with an acid to increase the soly. in an alkali developer, and (C) a compd. generating sulfonic acid is described. This photoresist decreases

the development of defects or the formation of scums when using an exposure source of 150 nm wavelength, in particular .ltoreq.220 nm, and improves microlithog. (photolithog.) process of LSI and microchips using far-UV ray such as excimer laser beam.

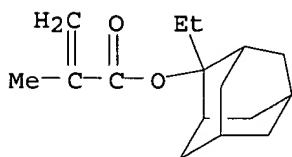
L6 ANSWER 61 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 55
 ACCESSION NUMBER: 2000:863757 CAPLUS
 DOCUMENT NUMBER: 134:49200
 TITLE: Far-UV positive-working photoresist composition
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000338674	A2	20001208	JP 1999-146775	19990526
IT	312620-58-9P				
	RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (far-UV pos.-working photoresist compn. from)				
RN	312620-58-9	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

CRN 209982-56-9

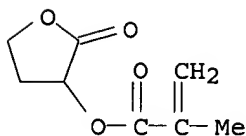
CMF C16 H24 O2



CM 2

CRN 195000-66-9

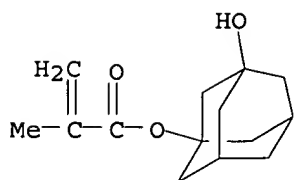
CMF C8 H10 O4



CM 3

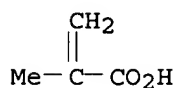
CRN 115372-36-6

CMF C14 H20 O3

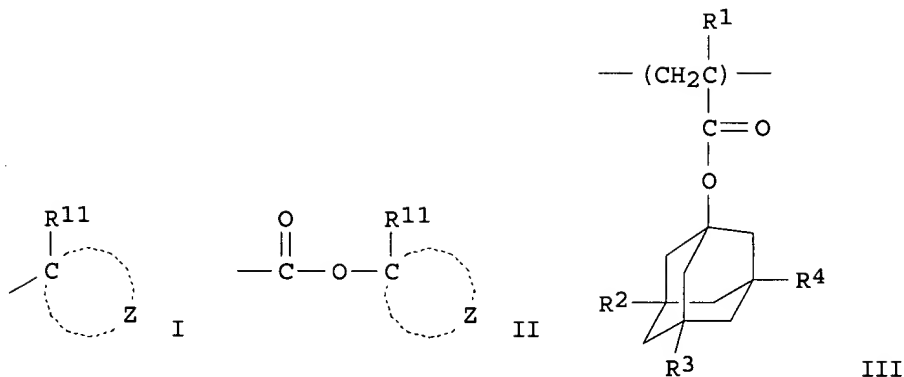


CM 4

CRN 79-41-4
CMF C4 H6 O2



GI



AB The title photoresist compn. comprises a photoacid and a resin which, increasing alk. soly. upon the reaction with an acid, contains a repating unit having .gtoreq.1 protective group selected from I, CR12R13R14, -CHR16(OR15), CR19R21R17C=CR18R20, -R22R25CCHR23C(:O)R24, and II (R11 = Me, Et, etc.; R12-16 = C1-4 alkyl, aliph.; R15,16 = aliph.; R17-21 = H, C1-4 alkyl, aliph.; R22-25 = C1-4 alkyl, aliph.) and III (R1 = H, halo, C1-4 alkyl; R2-4 = H, OH).

L6 ANSWER 62 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 56
ACCESSION NUMBER: 2000:823000 CAPLUS
DOCUMENT NUMBER: 133:367848
TITLE: Positive-working resist composition
INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

11-24-00

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000321771	A2	20001124	JP 1999-127296	19990507

IT **307976-27-8P**
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photoresist compn. contg. acrylic polymer and acid generator)

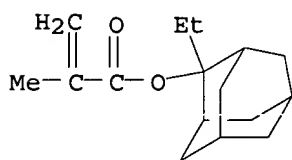
RN 307976-27-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

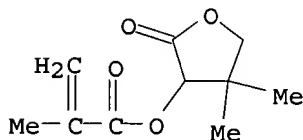
CMF C16 H24 O2



CM 2

CRN 156938-13-5

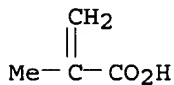
CMF C10 H14 O4



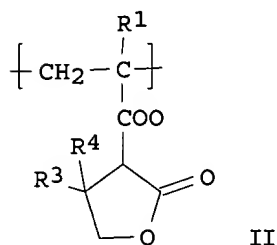
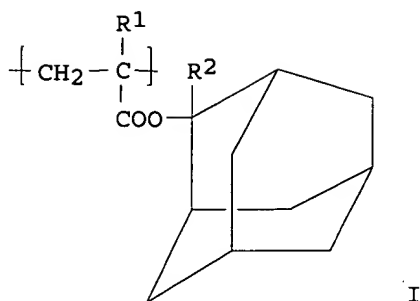
CM 3

CRN 79-41-4

CMF C4 H6 O2



GI



AB The title resist compn. contains (a) a resin which has repeating units I, II, and .gtoreq.1 selected from CH₂CR₁(CO₂H), CH₂CR₁[XOCR₅R₇CR₆R₈O(CR₉R₁₀CR₁₁R₁₂O)mR], CH₂CR₁(ZR₁₃AR₁₄), and CH₂CR₁(CO₂R₁₅SO₂OR₁₆) [R₁ = H, Me; R₂ = C₁-4 alkyl; R₃, R₄ = H, C₁-4 alkyl; R₅-12 = H, (substituted) alkyl; R = H, (substituted) alkyl, (substituted) cycloalkyl, (substituted) aryl, (substituted) aralkyl; m = 1-10; X = single bond, (substituted) alkylene, (substituted) cycloalkylene, (substituted) arylene, divalent group which is composed of .gtoreq.1 group selected from ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not decompd. by the action of acid; Z = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R₁₃ = single bond, alkylene, arylene, divalent group composed of these groups; R₁₄ = (substituted) alkyl, (substituted) cycloalkyl, (substituted) aryl, (substituted) aralkyl; R₁₅ = alkylene, arylene, divalent group composed of these groups; R₁₆ = H, (substituted) alkyl, (substituted) cycloalkyl, (substituted) alkenyl, (substituted) aryl, (substituted) aralkyl; A = CONHSO₂, SO₂NHCO, NHCONHSO₂, SO₂NHCONH, OCONHSO₂, SO₂NHCO₂, SO₂NHSO₂] and of which the dissoln. rate to alk. developing solns. is increased by the action of acid and (b) a compd. that generates an acid by irradiation with actinic ray or radiation. The compn. shows improved applicability to micro-photo-fabrication using far UV rays, esp. ArF excimer laser beams and developability and provides resist patterns with good profile and high resolu. contact holes.

L6 ANSWER 63 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 57
 ACCESSION NUMBER: 2000:768008 CAPLUS
 DOCUMENT NUMBER: 133:342484
 TITLE: Positive-working resist composition
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000305271	A2	20001102	JP 1999-114082	19990421
IT 304441-26-7				

RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working resist compn.)

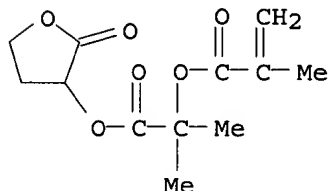
RN 304441-26-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethyl-2-oxo-2-[(tetrahydro-2-oxo-3-furanyl)oxy]ethyl ester, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and 2-(2-methoxyethoxy)ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 288303-54-8

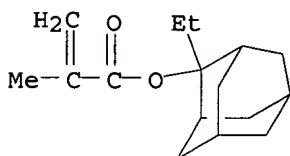
CMF C12 H16 O6



CM 2

CRN 209982-56-9

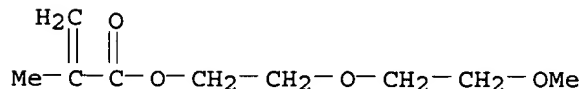
CMF C16 H24 O2



CM 3

CRN 45103-58-0

CMF C9 H16 O4



AB The pos.-working resist compn. used for ultramicroolithog. comprises a photoacid and a resin which increases the soly. rate in an alk. developer upon contacting an acid and has a group OCR1R3CR2R4O[CR5R6CR7R8O]mR (R1-8 = H, alkyl; R = H,m alkyl, cyclic alkyl, aryl, aralkyl; and m = 1-10) bonded to the polymer backbone chain directly or indirectly via an acid-stable bonding group.

L6 ANSWER 64 OF 76 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 58

ACCESSION NUMBER: 2000:624801 CAPLUS

DOCUMENT NUMBER: 133:215460

TITLE: Positive-working far UV-sensitive resist composition

INVENTOR(S): Kodama, Kunihiro; Sato, Kenichiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 36 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 Japanese
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000241977	A2	20000908	JP 1999-44978	19990223

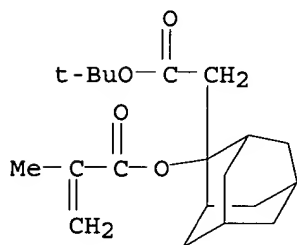
IT 290304-49-3P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin in pos.-working far UV sensitive resist compn.)

RN 290304-49-3 CAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-2-acetic acid, 2-[(2-methyl-1-oxo-2-propenyl)oxy]-, 1,1-dimethylethyl ester, polymer with tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

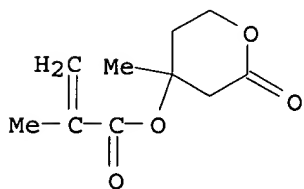
CM 1

CRN 290304-38-0
 CMF C20 H30 O4



CM 2

CRN 177080-66-9
 CMF C10 H14 O4

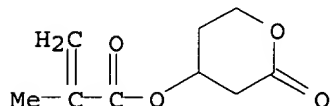


AB The pos.-working far UV-sensitive resist compn. has a photoacid generator and a resin, which has -O-C(R')(R'')(X-COR) (R', R'' = alkyl, cyclic hydrocarbon; X = single bond, divalent connecting group; R = alkoxy, amide, amino, etc.) group in the side chain, increasing the soly. towards an alkali developer upon reacting with an acid. The compn. having the resin is suitable for exposure with .ltoreq.250 nm far UV light.

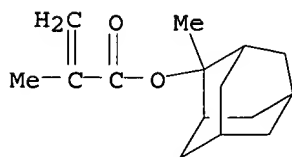
L6 ANSWER 65 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 59
 ACCESSION NUMBER: 2000:563063 CAPLUS
 DOCUMENT NUMBER: 133:185531
 TITLE: Positive-working photoresist composition for far UV exposure
 INVENTOR(S): Sato, Kenichiro; Ohashi, Hidekazu; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

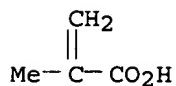
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000227659	A2	20000815	JP 1999-30209	19990208
IT	288303-50-4P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoresist compn. contg. photoacid generator, alkali-sol. resin, and sulfonic acid generator)				
RN	288303-50-4	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, polymer with 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	288303-49-1				
CMF	C9 H12 O4				



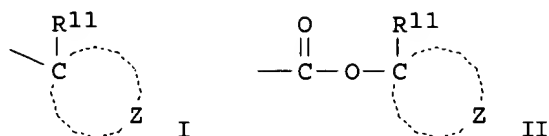
CM 2
 CRN 177080-67-0
 CMF C15 H22 O2



CM 3
 CRN 79-41-4
 CMF C4 H6 O2



GI



AB The title photoresist compn. contains (a) a compd. which generates an acid by irradiation with activating ray or radiation, (b) a resin which has alkali-sol. groups protected with .gtoreq.1 of alicyclic hydrocarbon-contg. partial structures I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11= Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form a alicyclic hydrocarbon along with the C atom; R12-16, R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or R22-25 or either R15 or R16 is alicyclic hydrocarbon; .gtoreq.1 of R22-25 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon) and is cleaved by the action of acid to increase the soly. to alkali, and (c) a compd. which is cleaved by the action of acid to generate a sulfonic acid. The compn. shows high sensitivity toward far UV rays of wavelength 170-220 nm and improved developability and provides high resolu. resist patterns with good line width reproducibility.

L6 ANSWER 66 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 60
 ACCESSION NUMBER: 2000:357221 CAPLUS
 DOCUMENT NUMBER: 133:11016
 TITLE: Positive-working photoresist composition for far ultraviolet ray exposure
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

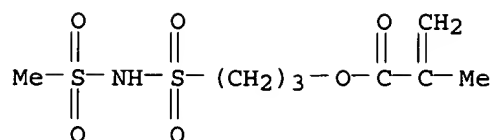
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000147776	A2	20000526	JP 1998-327054	19981117
US 2002081518	A1	20020627	US 1999-438789	19991112
US 6420082	B1	20020716		

PRIORITY APPLN. INFO.: JP 1998-323783 A 19981113
 JP 1998-327054 A 19981117

IT 270900-71-5P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photoresist contg. acid generator and alkali-sol. resin)
 RN 270900-71-5 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-[[[(methylsulfonyl)amino]sulfonyl]propyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl
 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

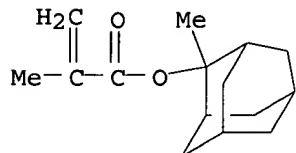
CRN 270900-52-2
 CMF C8 H15 N O6 S2



CM 2

CRN 177080-67-0

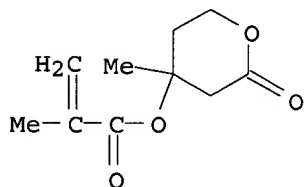
CMF C15 H22 O2



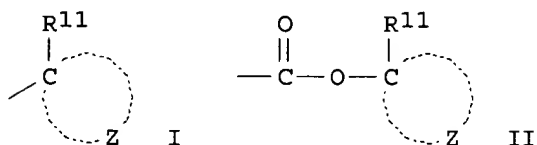
CM 3

CRN 177080-66-9

CMF C10 H14 O4



GI

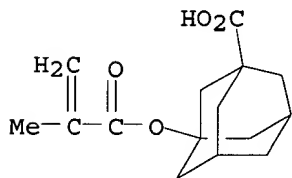


AB The title photoresist compn. contains (a) a compd. that generates an acid by irradiation with activating ray or radiation and (b) a resin having alkali-sol. groups protected with .gtoreq.1 group selected from I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II [R11 = Me, Et, n- or iso-Pr, n-, iso- or sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16, R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or 1 of R15 and R16 is an alicyclic hydrocarbon group, .gtoreq.1 of R22-25 is an alicyclic hydrocarbon group; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is an alicyclic hydrocarbon group, R19 or R21 is a C1-4 straight-chain or branched alkyl or cyclic hydrocarbon group] and groups AXR5 [A is a combination of .gtoreq.1 group selected from single bond, (substituted) alkylene, ether, thioether, carbonyl, and ester; X = NHSO2, SO2NH, SO2NHSO2, NHCONHSO2, CONHSO2, SO2NHCO, SO2NHCONH, OCONHSO2,

SO₂NHCO₂; R₅ = (substituted) alkyl, (substituted) alicyclic hydrocarbon], which is cleaved by the action of acid to increase the soly. to alkali. The compn. shows high sensitivity in the wavelength region of 170-220 nm and provides high resoln. resist patterns with improved dense and coarse dependence.

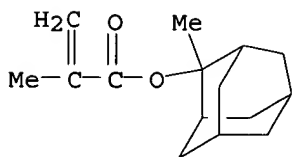
L6 ANSWER 67 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 61
 ACCESSION NUMBER: 2000:357220 CAPLUS
 DOCUMENT NUMBER: 133:11015
 TITLE: Positive-working photoresist composition for far ultraviolet ray exposure
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000147775	A2	20000526	JP 1998-327052	19981117
IT	270251-49-5P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoresist compn. contg. photoacid generator and alkali-sol. resin)				
RN	270251-49-5	CAPLUS			
CN	Tricyclo[3.3.1.1 ^{3,7}]decane-1-carboxylic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	212580-10-4				
CMF	C15 H20 O4				



CM 2

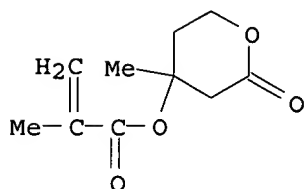
CRN 177080-67-0
 CMF C15 H22 O2



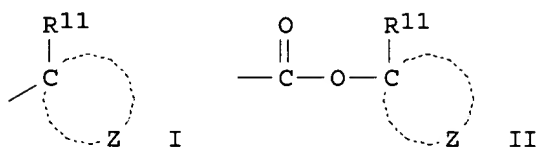
CM 3

CRN 177080-66-9

CMF C10 H14 O4



GI



AB The title photoresist compn. contains (a) a compd. that generates an acid by irradiation with activating ray or radiation and (b) a resin contg. a repeating unit having alkali-sol. groups protected with .gtoreq.1 group selected from I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II [R11 = Me, Et, n- or iso-Pr, n-, iso- or sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16, R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R12-14 or 1 of R15 and R16 is an alicyclic hydrocarbon group, .gtoreq.1 of R22-25 is an alicyclic hydrocarbon group; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, .gtoreq.1 of R17-21 is an alicyclic hydrocarbon group, R19 or R21 is a C1-4 straight-chain or branched alkyl or cyclic hydrocarbon group] and another repeating unit CR1R3CR2R4 [R1-4 = H, halo, C1-4 straight-chain or branched alkyl, .gtoreq.1 of R1-4 is CO2RnARmCO2H; R is a combination of .gtoreq.1 group selected from single bond, (substituted) alkylene, ether, thioether, carbonyl, and ester; A = alicyclic hydrocarbon; m, n = 0 or 1], which is cleaved by the action of acid to increase the soly. to alkali. The compn. shows improved suitability to the std. developing soln. and high sensitivity in the wavelength region of 170-220 nm and provides high resolu. resist patterns with improved dense and coarse dependence.

L6 ANSWER 68 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 62
ACCESSION NUMBER: 2000:267288 CAPLUS
DOCUMENT NUMBER: 132:300949
TITLE: Photoresist resin composition having acid sensitive (meth)acrylate polymer
INVENTOR(S): Nakano, Tatsuya; Mori, Misao
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000119588	A2	20000425	JP 1998-293563	19981015

IT 264616-27-5P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acid sensitive (meth)acrylate polymer)

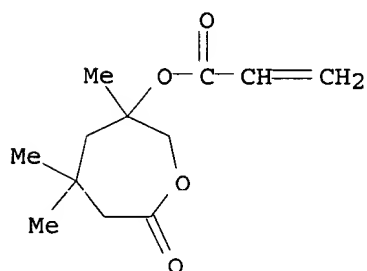
RN 264616-27-5 CAPLUS

CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 3,5,5-trimethyl-7-oxo-3-oxepanyl 2-propenoate and 4,6,6-trimethyl-2-oxo-4-oxepanyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 264616-25-3

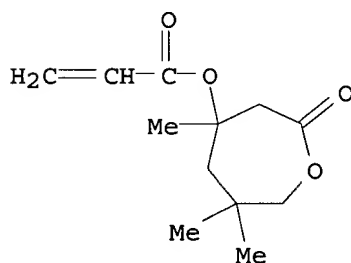
CMF C12 H18 O4



CM 2

CRN 264616-24-2

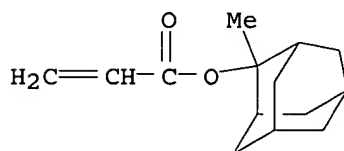
CMF C12 H18 O4



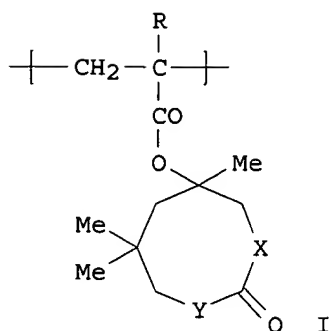
CM 3

CRN 249562-06-9

CMF C14 H20 O2



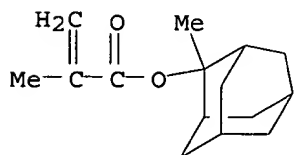
GI



AB The photoresist compn. has acid sensitive (meth)acrylate polymer with repeating unit I (R = H, Me; X, Y = single bond, O) and a light-sensitive acid-generating agent. The Photoresist resin compn. with the (meth)acrylate polymer provides the pattern of the improved precision.

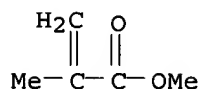
L6 ANSWER 69 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 63
 ACCESSION NUMBER: 2000:205773 CAPLUS
 DOCUMENT NUMBER: 132:229519
 TITLE: Method for forming chemically amplified resist pattern for semiconductor device fabrication
 INVENTOR(S): Sasako, Masaru
 PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000089464	A2	20000331	JP 1998-254076	19980908
IT	261631-25-8P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (chem. amplified resist)				
RN	261631-25-8	CAPLUS			
CN	2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	177080-67-0				
CMF	C15 H22 O2				



CM 2
 CRN 80-62-6

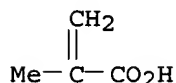
CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



AB The method for forming a chem. amplified resist pattern includes steps of: forming a chem. amplified resist film made from an acrylic polymer having an aliph. ring on a substrate; patternwise exposing the resist with vacuum UV or extreme UV light; and developing the resist to form a pattern. The method provides the excellent pattern profile.

L6 ANSWER 70 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 64

ACCESSION NUMBER: 2000:67678 CAPLUS

DOCUMENT NUMBER: 132:130026

TITLE: Positive-working resist composition suited for use in deep UV ray exposure

INVENTOR(S): Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

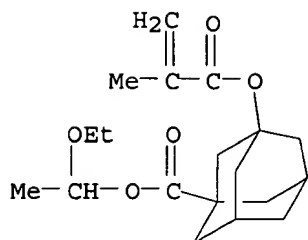
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 2000029219	A2	20000128	JP 1998-197730	19980713
IT	256346-99-3P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(deep UV-sensitive pos. resist compn.)				
RN	256346-99-3	CAPLUS			
CN	Tricyclo[3.3.1.1 ^{3,7}]decane-1-carboxylic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, 1-ethoxyethyl ester, polymer with 2-methyl-2-propenoic acid and 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI)				
	(CA INDEX NAME)				

CM 1

CRN 216308-47-3

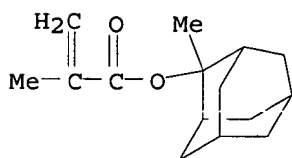
CMF C19 H28 O5



CM 2

CRN 177080-67-0

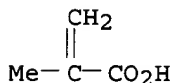
CMF C15 H22 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



AB The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO₂H groups, (c) a compd. having .gtoreq.2 groups CR₁R₂C:CR₃Z [R₁-3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2 of R₁3 may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO₂, NH], (d) a cyclic aliph. org. carboxylic acid with mol. wt. .ltoreq.1000 and/or a naphthalene ring-contg. org. carboxylic acid, (e) a N-contg. basic compd., and (f) a F-type and/or Si-type surfactant. The compn. shows improved developability and provides a resolu. pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.

L6 ANSWER 71 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 65

ACCESSION NUMBER: 2000:67677 CAPLUS

DOCUMENT NUMBER: 132:130025

TITLE: Positive-working resist composition suited for use in deep ultraviolet ray exposure

INVENTOR(S): Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000029218	A2	20000128	JP 1998-197729	19980713

IT **256346-99-3P**

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(deep UV-sensitive pos. resist compn.)

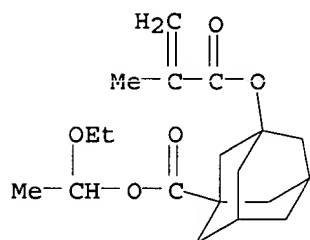
RN 256346-99-3 CAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxylic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, 1-ethoxyethyl ester, polymer with 2-methyl-2-propenoic acid and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 216308-47-3

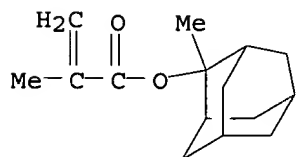
CMF C19 H28 O5



CM 2

CRN 177080-67-0

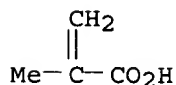
CMF C15 H22 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2

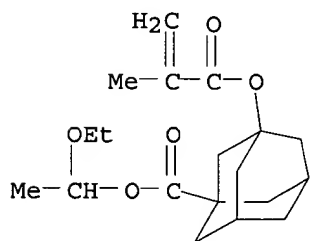


AB The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO₂H groups, (c) a compd. having .gtoreq.2 groups CR₁R₂C:CR₃Z [R₁-3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2 of R₁3 may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO₂, NH], (d) a N-contg. basic compd., and (e) a F-type and/or Si-type surfactant. The compn. shows improved

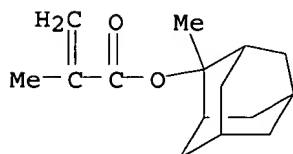
developability and provides a pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.

L6 ANSWER 72 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 66
 ACCESSION NUMBER: 2000:67675 CAPLUS
 DOCUMENT NUMBER: 132:130024
 TITLE: Positive-working resist composition suited for use in deep ultraviolet ray exposure
 INVENTOR(S): Aogo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000029216	A2	20000128	JP 1998-194566	19980709
IT	256346-99-3P				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (deep UV-sensitive pos. resist compn.)				
RN	256346-99-3	CAPLUS			
CN	Tricyclo[3.3.1.1 ^{3,7}]decane-1-carboxylic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, 1-ethoxyethyl ester, polymer with 2-methyl-2-propenoic acid and 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	216308-47-3				
CMF	C19 H28 O5				

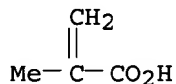


CM 2
 CRN 177080-67-0
 CMF C15 H22 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



AB The title resist compn. contains (a) a compd. generating an acid upon activating ray or radiation irradiation, (b) a resin having polycyclic alicyclic groups and CO₂H groups, (c) a compd. having .gtoreq.2 groups CR₁R₂C:CR₃Z [R₁-3 = H, (substituted) alkyl, (substituted) cycloalkyl, 2 of R₁-3 may link each other to form a ring structure comprising 3-8 C atoms and heteroatoms; Z = O, S, SO₂, NH], (d) a compd. having a N-contg. basic group and acidic group in its mol., and (e) a F-type and/or Si-type surfactant. The compn. shows improved developability and provides a resolu. pattern with high residual film rate and good profile using deep UV rays, esp., ArF excimer lasers.

L6 ANSWER 73 OF 76 USPATFULL

ACCESSION NUMBER: 2000:4579 USPATFULL

TITLE: Chemically amplified resist compositions and process for the formation of resist patterns

INVENTOR(S): Nozaki, Koji, Kawasaki, Japan
Yano, Ei, Kawasaki, Japan
Watanabe, Keiji, Kawasaki, Japan
Namiki, Takahisa, Kawasaki, Japan
Igarashi, Miwa, Kawasaki, Japan
Kuramitsu, Yoko, Kawasaki, Japan
Takechi, Satoshi, Kawasaki, Japan
Kotachi, Akiko, Kawasaki, Japan
Takahashi, Makoto, Kawasaki, Japan

PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6013416		20000111
APPLICATION INFO.:	US 1996-673739		19960627 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-162287	19950628
	JP 1995-178717	19950714
	JP 1995-312722	19951130
	JP 1996-50264	19960307

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Hamilton, Cynthia
LEGAL REPRESENTATIVE: Armstrong, Westerman Hattori, McLeland & Naughton
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
LINE COUNT: 3627

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 186585-94-4P 186586-03-8P
(chem. amplification resist compn.)

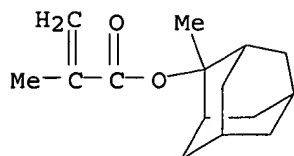
RN 186585-94-4 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 3-ethenyldihydro-2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

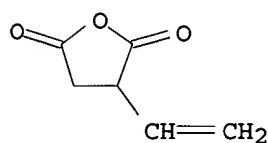
CMF C15 H22 O2



CM 2

CRN 39739-64-5

CMF C6 H6 O3



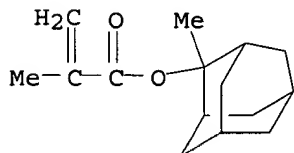
RN 186586-03-8 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1.3,7]dec-2-yl ester, polymer with 2-propenal (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

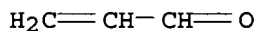
CMF C15 H22 O2



CM 2

CRN 107-02-8

CMF C3 H4 O



AB Alkali-developable, chemically amplified resist composition which comprises an alkali-insoluble, film-forming compound having a structural unit containing a protected alkali-soluble group in which unit a protective moiety of said protected alkali-soluble group is cleaved upon action of an acid generated from a photoacid generator used in combination with said compound, thereby releasing a protective moiety from the alkali-soluble group and converting said compound to an alkali-soluble one, and a photoacid generator capable of being decomposed upon exposure to a patterning radiation to thereby produce an acid capable of causing cleavage of said protective moiety. The resist composition is particularly suitable for excimer laser lithography using

an alkaline developer, and the formed resist patterns can exhibit a high sensitivity and excellent dry etch resistance without swelling.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 74 OF 76 USPATFULL

ACCESSION NUMBER: 1999:128329 USPATFULL

TITLE: Chemically amplified resist compositions and process for the formation of resist patterns

INVENTOR(S): Nozaki, Koji, Kawasaki, Japan
Yano, Ei, Kawasaki, Japan
Watanabe, Keiji, Kawasaki, Japan
Namiki, Takahisa, Kawasaki, Japan
Igarashi, Miwa, Kawasaki, Japan
Kuramitsu, Yoko, Kawasaki, Japan
Takechi, Satoshi, Kawasaki, Japan
Kotachi, Akiko, Kawasaki, Japan
Takahashi, Makoto, Kawasaki, Japan

PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5968713		19991019
APPLICATION INFO.:	US 1997-896833		19970718 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-673739, filed on 27 Jun 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-162287	19950628
	JP 1995-178717	19950714
	JP 1995-312722	19951130
	JP 1996-50264	19960307

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Hamilton, Cynthia
LEGAL REPRESENTATIVE: Armstrong, Westerman, Hattori, McLeland, and, Naughton
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1,11
LINE COUNT: 3663

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 186585-94-4P 186586-03-8P
(chem. amplification resist compn.)

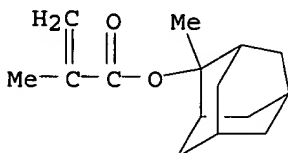
RN 186585-94-4 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 3-ethenyldihydro-2,5-furandione (9CI) (CA INDEX NAME)

CM 1

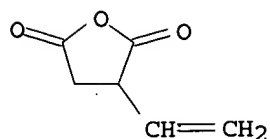
CRN 177080-67-0

CMF C15 H22 O2



CM 2

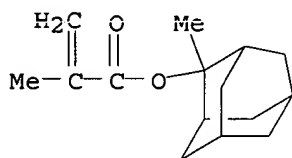
CRN 39739-64-5
CMF C6 H6 O3



RN 186586-03-8 USPATFULL
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 2-propenal (9CI) (CA INDEX NAME)

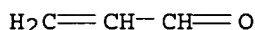
CM 1

CRN 177080-67-0
CMF C15 H22 O2



CM 2

CRN 107-02-8
CMF C3 H4 O



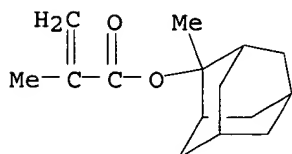
AB Alkali-developable, chemically amplified resist composition which comprises an alkali-insoluble, film-forming compound having a structural unit containing a protected alkali-soluble group in which unit a protective moiety of said protected alkali-soluble group is cleaved upon action of an acid generated from a photoacid generator used in combination with said compound, thereby releasing a protective moiety from the alkali-soluble group and converting said compound to an alkali-soluble one, and a photoacid generator capable of being decomposed upon exposure to a patterning radiation to thereby produce an acid capable of causing cleavage of said protective moiety. The resist composition is particularly suitable for excimer laser lithography using an alkaline developer, and the formed resist patterns can exhibit a high sensitivity and excellent dry etch resistance without swelling.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 75 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 67
ACCESSION NUMBER: 1997:290215 CAPLUS
DOCUMENT NUMBER: 126:270390
TITLE: Resist composition containing a base resin with
repeating unit having protected hydroxy groups and the
patterning method
INVENTOR(S): Kodachi, Akiko
PATENT ASSIGNEE(S): Fujitsu Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 Japanese
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 09050126	A2	19970218	JP 1995-202343	19950808
IT	188823-68-9P, 3-O-Methacryloyl-1,2:5,6-di-O-isopropylidene-.alpha.-D-glucofuranose-2-methyl-2-adamantyl methacrylate copolymer				
	RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(water-developable resist compn. contg. base polymer having group derived from OH-protected glucofuranose)				
RN	188823-68-9	CAPLUS			
CN	.alpha.-D-Glucofuranose, 1,2:5,6-bis-O-(1-methylethylidene)-, 2-methyl-2-propenoate, polymer with 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	177080-67-0				
CMF	C15 H22 O2				



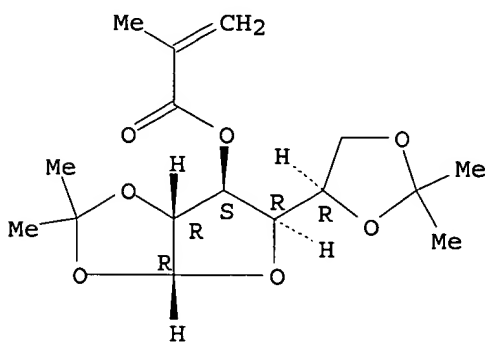
CM 2

CRN 6613-70-3

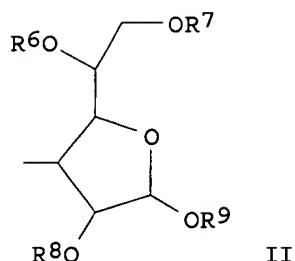
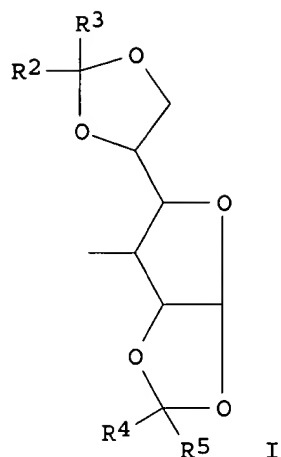
CMF C16 H24 O7

CDES 5:A-D-GLUCO

Absolute stereochemistry.



GI



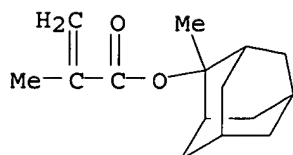
AB The resist compn. contains a base resin and a photoacid generator, and the resin comprises a polymer with a repeating unit having protected OH group(s). The repeating unit having protected OH group(s) may be [CH₂CR₁[CO₂(CH₂)_nX]] [R₁ = H, C1-6 alkyl, halo, haloalkyl; X = group derived from OH-protected glucofuranose, i.e. I,II (R₂-5 = C1-6 alkyl, haloalkyl; R₆-9 = group capable of being released by acids); n .gtoreq. 1]. The resist compn. is developable with H₂O.

L6 ANSWER 76 OF 76 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 68
 ACCESSION NUMBER: 1997:134745 CAPLUS
 DOCUMENT NUMBER: 126:150516
 TITLE: Chemical amplification resist composition and method to manufacture resist master using the same
 INVENTOR(S): Nozaki, Koji; Yano, Ei; Watanabe, Keiji; Namiki, Takahisa; Igarashi, Miwa; Kuramitsu, Yoko; Takechi, Satoshi; Kotachi, Akiko; Takahashi, Makoto
 PATENT ASSIGNEE(S): Fujitsu Ltd., Japan
 SOURCE: Ger. Offen., 87 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19626003	A1	19970102	DE 1996-19626003	19960628
DE 19626003	C2	20020214		
JP 09090637	A2	19970404	JP 1995-312722	19951130
JP 3297272	B2	20020702		
JP 09073173	A2	19970318	JP 1996-50264	19960307
PRIORITY APPLN. INFO.:			JP 1995-162287	A 19950628
			JP 1995-178717	A 19950714
			JP 1995-312722	A 19951130
			JP 1996-50264	A 19960307

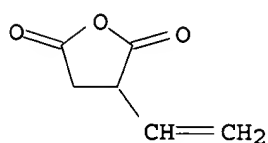
IT **186585-94-4P 186586-03-8P**
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (chem. amplification resist compn.)
 RN 186585-94-4 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 3-ethenyldihydro-2,5-furandione (9CI) (CA INDEX NAME)

CRN 177080-67-0
CMF C15 H22 O2



CM 2

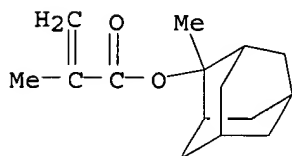
CRN 39739-64-5
CMF C6 H6 O3



RN 186586-03-8 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1.3]dec-2-yl ester,
polymer with 2-propenal (9CI) (CA INDEX NAME)

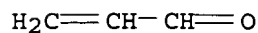
CM 1

CRN 177080-67-0
CMF C15 H22 O2



CM 2

CRN 107-02-8
CMF C3 H4 O



AB The title alkali-developable resist compn. comprises a compd. with lactone component (Markush structure given) and alicyclic hydrocarbyl component (Markush structure given). The lactone component may be (+-)-mevalonic lactone and the alicyclic hydrocarbyl component may be 2-alkyl-2-adamantyl. The compn. is useful in an Excimer laser lithog. to produce resist-master with high sensitivity and excellent dry etch-resistance.



STN-search

Do NOT Remove *

=> d 16 1-7 ibib abs hitstr

L6 ANSWER 1 OF 7 USPATFULL

ACCESSION NUMBER: 2001:196771 USPATFULL

TITLE: Ester compounds, polymers, resist compositions and patterning process

INVENTOR(S): Kinsho, Takeshi, Nakakubiki-gun, Japan
Nishi, Tsunehiro, Nakakubiki-gun, Japan
Kurihara, Hideshi, Usui-gun, Japan
Hasegawa, Koji, Nakakubiki-gun, Japan
Watanabe, Takeru, Nakakubiki-gun, Japan
Watanabe, Osamu, Nakakubiki-gun, Japan
Nakashima, Mutsuo, Nakakubiki-gun, Japan
Takeda, Takanobu, Nakakubiki-gun, Japan
Hatakeyama, Jun, Nakakubiki-gun, Japan

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6312867	B1	20011106
APPLICATION INFO.:	US 1999-431139		19991101 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-312533	19981102
	JP 1999-75355	19990319
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ashton, Rosemary E.	
LEGAL REPRESENTATIVE:	Millen, White, Zelano & Branigan, P.C.	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	4	
LINE COUNT:	2117	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel ester compound having an exo-form 2-alkylbicyclo[2.2.1]heptan-2-yl group as the protective group is provided as well as a polymer comprising units of the ester compound. The polymer is used as a base resin to formulate a resist composition having a higher sensitivity, resolution and etching resistance than conventional resist compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 271599-49-6P

(ester monomers, polymers, resist compns. and patterning process)

RN 271599-49-6 USPATFULL

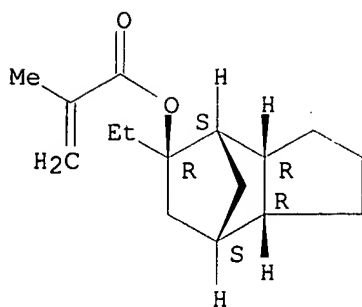
CN 2-Propenoic acid, 2-methyl-, (3aR,4S,5R,7S,7aR)-5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, rel-, polymer with 1,1-dimethylethyl 4-ethenylphenyl carbonate, 4-ethenylphenol and 2-(4-ethenylphenoxy)tetrahydro-2H-pyran (9CI) (CA INDEX NAME)

CM 1

CRN 271598-65-3

CMF C16 H24 O2

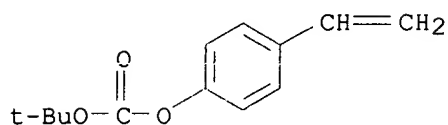
Relative stereochemistry.



CM 2

CRN 87188-51-0

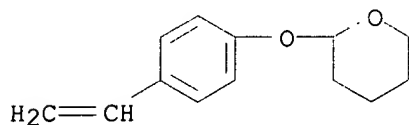
CMF C13 H16 O3



CM 3

CRN 65409-15-6

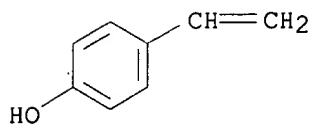
CMF C13 H16 O2



CM 4

CRN 2628-17-3

CMF C8 H8 O



L6 ANSWER 2 OF 7 USPATFULL

ACCESSION NUMBER: 2000:57502 USPATFULL

TITLE: Photosensitive material

INVENTOR(S): Shida, Naomi, Kawasaki, Japan

Ushirogouchi, Toru, Yokohama, Japan

Naito, Takuya, Tokyo, Japan

Nakase, Makoto, Tokyo, Japan

PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6060207		20000509
APPLICATION INFO.:	US 1995-499974		19950710 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-158512	19940711
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hamilton, Cynthia	
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1,8,10,12,21	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	16582	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A photosensitive material which is very low in absorption of a light source of short wavelength and excellent in dry etch resistance. This photosensitive material comprises a compound having a terpenoid skeleton. Preferably, the compound having a terpenoid skeleton is a compound having a monovalent menthyl group or menthyl derivative group which can be represented by the general formula (1). ##STR1## wherein R is a hydrogen atom or a monovalent hydrocarbon group, R.sup.1 may be the same with or different from each other and individually represents a hydrogen atom, a halogen atom, a hydrocarbon group, a hydroxyl group, an alkoxyl group, an amino group, an alkoxy group, an amino group, an imide group, an amide group, or a sulfonyl group, a carboxyl group, a carbonyl group, or a sulfonamide group, and a pair of neighboring R.sup.1 may be connected together to form a closed ring.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 174951-73-6P

(photoresist compn.)

RN 174951-73-6 USPATFULL

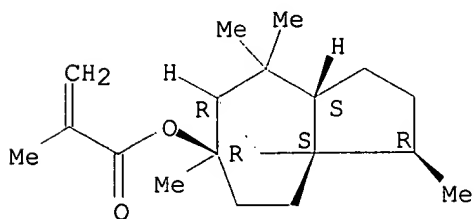
CN 2-Propenoic acid, 2-methyl-, octahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-6-yl ester, [3R-(3.alpha.,3a.beta.,6.alpha.,7.beta.,8a.alpha.)]-, polymer with oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 132603-01-1

CMF C19 H30 O2

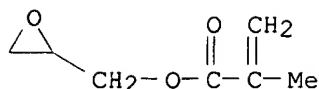
Absolute stereochemistry.



CM 2

CRN 106-91-2

CMF C7 H10 O3



L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:496390 CAPLUS

DOCUMENT NUMBER: 135:99843

TITLE: Radiation-sensitive polymer compositions with good dry etching resistance for semiconductor fabrication

INVENTOR(S): Ishii, Hiroyuki; Doki, Katsuji; Kajita, Toru; Shimokawa, Tsutomu

PATENT ASSIGNEE(S): JSR Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001188347	A2	20010710	JP 2000-137757	20000510

PRIORITY APPLN. INFO.: JP 1999-296028 A 19991018

AB The compns. comprise (A) acid-dissocg. group-contg. alkali-insol. polymers having CR1[C(:O)OAR2]CH2 and CR6[C(:O)OR7]CH2 (R1, R6 = H, C1-4 alkyl, alkoxy, or hydroxyalkyl; A = single bond, C1-4 alkylene; R2 = R3X1, R4:X2, R5.tplbond.X3; R3-R5 = C4-20 alicyclic group; X1-X3 = O- or N-contg. group; R7 = C4-20 alicyclic group, CR83; R8 = C1-4 alkyl or alicyclic group) and showing alkali. soly. by dissocn. of the acid-dissocg. groups and (B) acid generators. The compns. show good storage stability, high transparency for radiation, and high resolu.

IT **348631-22-1P**
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (radiation-sensitive resists using alicyclic group-contg. acrylic polymers with good dry etching resistance)

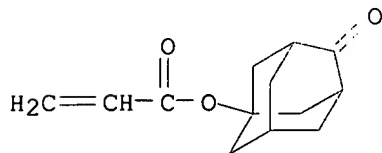
RN 348631-22-1 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and 4-oxotricyclo[3.3.1.1^{3,7}]dec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

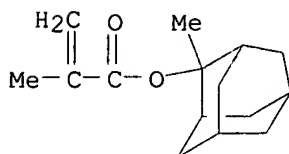
CRN 216582-09-1

CMF C13 H16 O3



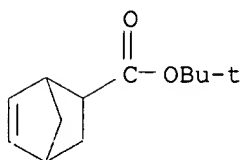
CM 2

CRN 177080-67-0
CMF C15 H22 O2



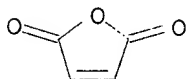
CM 3

CRN 154970-45-3
CMF C12 H18 O2



CM 4

CRN 108-31-6
CMF C4 H2 O3



L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:367047 CAPLUS

DOCUMENT NUMBER: 133:18002

TITLE: Ester monomers, polymers, resist compositions and patterning process

INVENTOR(S): Kinsho, Takeshi; Nishi, Tsunehiro; Kurihara, Hideshi; Hasegawa, Koji; Watanabe, Takeru; Watanabe, Osamu; Nakashima, Mutsuo; Takeda, Takanobu; Hatakeyama, Jun

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 65 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1004568	A2	20000531	EP 1999-308687	19991102
EP 1004568	A3	20010228		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000336121	A2	20001205	JP 1999-307148	19991028

KR 2000035130	A	20000626	KR 1999-47904	19991101
US 6312867	B1	20011106	US 1999-431139	19991101
PRIORITY APPLN. INFO.:			JP 1998-312533	A 19981102
			JP 1999-75355	A 19990319

AB An ester compd. having an exo-form 2-alkylbicyclo[2.2.1]heptan-2-yl group as the protective group is provided as well as a polymer comprising units of the ester compd. The polymer is used as a base resin to formulate a resist compn. having a higher sensitivity, resoln. and etching resistance than conventional resist compns. A polymer was prepd. from 8-ethyltricyclo[5.2.1.0^{2,6}]decan-8-yl methacrylate and 5-methyl-2-oxoxolan-5-yl methacrylate.

IT **271599-49-6P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ester monomers, polymers, resist compns. and patterning process)

RN 271599-49-6 CAPLUS

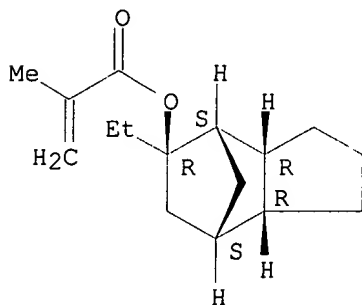
CN 2-Propenoic acid, 2-methyl-, (3aR,4S,5R,7S,7aR)-5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, rel-, polymer with 1,1-dimethylethyl 4-ethenylphenyl carbonate, 4-ethenylphenol and 2-(4-ethenylphenoxy)tetrahydro-2H-pyran (9CI) (CA INDEX NAME)

CM 1

CRN 271598-65-3

CMF C16 H24 O2

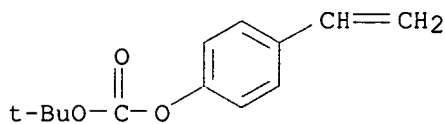
Relative stereochemistry.



CM 2

CRN 87188-51-0

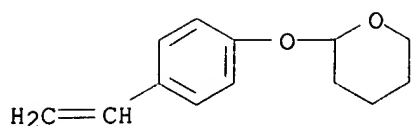
CMF C13 H16 O3



CM 3

CRN 65409-15-6

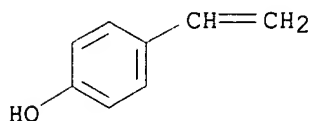
CMF C13 H16 O2



CM 4

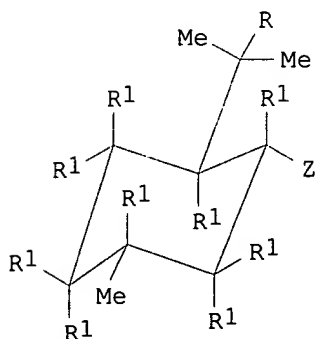
CRN 2628-17-3

CMF C8 H8 O

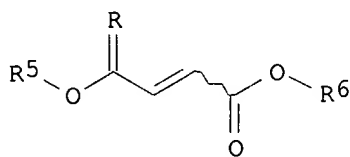


L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1996:190901 CAPLUS
 DOCUMENT NUMBER: 124:302576
 TITLE: Photosensitive material
 INVENTOR(S): Shida, Naomi; Ushirogouchi, Toru; Naito, Takuya;
 Nakase, Makoto
 PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan
 SOURCE: Ger. Offen., 371 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19525221	A1	19960125	DE 1995-19525221	19950711
JP 08082925	A2	19960326	JP 1995-185046	19950629
US 6060207	A	20000509	US 1995-499974	19950710
PRIORITY APPLN. INFO.: GI			JP 1994-158512	19940711



I



II

AB The title material comprises a compd. contg. a monomer from an acrylate ester of a terpenoid compd. $\text{CH}_2\text{C(R4)CO}_2\text{R3}$ [R3 = I (R = H, hydrocarbon; R1 = H, halogen, hydrocarbon; hydroxyl, alkoxy, amino, imide, amide, sulfonyl, carboxyl, carbonyl, sulfonamide where 2 adjoining groups may

form ring)]. The material has improved absorption for shorter wavelength light.

IT 174951-73-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresist compn.)

RN 174951-73-6 CAPLUS

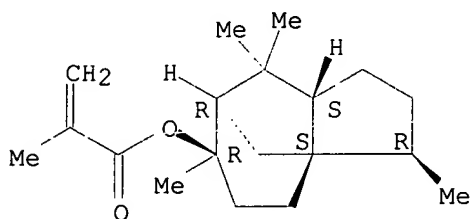
CN 2-Propenoic acid, 2-methyl-, octahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-6-yl ester, [3R-(3.alpha.,3a.beta.,6.alpha.,7.beta.,8a.alpha.)]-, polymer with oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 132603-01-1

CMF C19 H30 O2

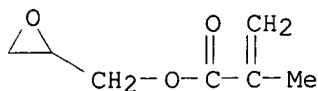
Absolute stereochemistry.



CM 2

CRN 106-91-2

CMF C7 H10 O3



L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1971:142576 CAPLUS

DOCUMENT NUMBER: 74:142576

TITLE: Compounds synthesized by condensation of monomer and polymer anhydrides with resorcinol and aminophenols
Spasovska, N.; Panaiotov, Ivan M.

AUTHOR(S): Bulg.

CORPORATE SOURCE:

SOURCE: Dokl. Bulg. Akad. Nauk (1970), 23(11), 1369-72

CODEN: DBANAD

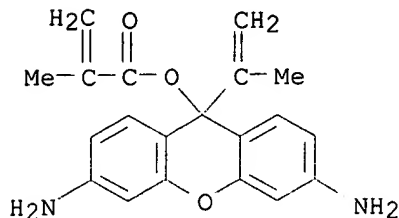
DOCUMENT TYPE: Journal

LANGUAGE: English

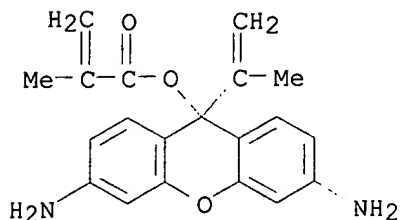
GI For diagram(s), see printed CA Issue.

AB Fluorescing polyanhydride-substituted phenol condensates such as I and II, where X = H or Me and R = OH, NH₂, or NEt₂, were prepd. from polyitaconic, polyacrylic, or polymethacrylic anhydrides and resorcinol (III), m-aminophenol (IV), or N,N-diethyl-m-aminophenol (V) and the analogous substituted phenol-anhydride condensate monomers such as VI and VII where X = H or Me and R = OH, NH₂, or NEt₂, were prepd. from itaconic, acrylic, and methacrylic anhydrides and III, IV, or V in the presence of CuCl. Both the monomeric and polymeric products were studied by thermogravimetric anal., soly. tests, and ir spectroscopy.

IT 32191-24-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 32191-24-5 CAPLUS
 CN Methacrylic acid, 3,6-diamino-9-isopropenylxanthen-9-yl ester (8CI) (CA
 INDEX NAME)



L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1971:142562 CAPLUS
 DOCUMENT NUMBER: 74:142562
 TITLE: Electronic spectra of compounds obtained on the bases
 of acrylic, methacrylic, itaconic, and maleic
 anhydrides and the corresponding polyanhydrides
 AUTHOR(S): Spasovska, N.
 CORPORATE SOURCE: Bulg.
 SOURCE: Dokl. Bolg. Akad. Nauk (1970), 23(11), 1373-6
 CODEN: DBANAD
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI For diagram(s), see printed CA Issue.
 AB No major differences were obsd. when the uv, visible, and fluorescent
 absorption and emission spectra of xanthene monomers, such as I, II, and
 III, where X = H, or Me and R = OH, NH2, or NEt2, obtained by condensing
 acrylic, methacrylic, itaconic, and maleic anhydrides with resorcinol
 (IV), m-aminophenol (V), and N,N-diethyl-m-aminophenol (VI) were compared
 with spectra for polyanhydride-phenol condensate polymers, such as VII,
 VIII, and IX, where R = OH, NH2, or N(Et)2 (obtained by condensing
 polyacrylic, polymethacrylic, polyitaconic, and polymaleic anhydrides with
 IV, V, and VI).
 IT 32191-24-5
 RL: PRP (Properties)
 (spectrum of)
 RN 32191-24-5 CAPLUS
 CN Methacrylic acid, 3,6-diamino-9-isopropenylxanthen-9-yl ester (8CI) (CA
 INDEX NAME)



L17 ANSWER 1 OF 167 USPATFULL

ACCESSION NUMBER: 2002:60870 USPATFULL

TITLE: Crosslinked positive-working **photoresist** composition

INVENTOR(S): Oomori, Katsumi, Chigasaki-shi, JAPAN
Kinoshita, Yohei, Sagamihara-shi, JAPAN
Yamada, Tomotaka, Atsugi-shi, JAPAN
Takayama, Toshikazu, Kanagawa-ken, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002034704	A1	20020321
APPLICATION INFO.:	US 2001-928399	A1	20010814 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-250174	20000821
	JP 2000-250175	20000821
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	765	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention discloses a chemical-amplification positive-working **photoresist** composition of the crosslinked type used for photolithographic patterning works in the manufacture of electronic devices. While the composition comprises a film-forming resinous ingredient capable of being imparted with increased alkali-solubility in the presence of an acid and a radiation-sensitive **acid-generating** compound, optionally, with further admixture of an aliphatic amine compound and an acid compound, the inventive **photoresist** composition is characterized by the unique resinous ingredient which consists of four types of monomeric units including hydroxystyrene units, styrene units, monomeric units having acid-dissociable solubility-reducing groups and crosslinking units. The acid-dissociable solubility-reducing group is not conventional tert-butoxycarbonyloxy group but characteristically a 1-alkylcyclohexyl group or a **polycyclic** saturated aliphatic hydrocarbon group.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **400865-44-3**, 2,5-Dimethyl-2,5-hexanediol diacrylate-1-ethylcyclohexyl acrylate-hydroxystyrene-styrene copolymer
400865-46-5 400865-47-6

(crosslinked pos.-working photoresist compn. contg.)

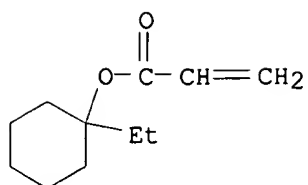
RN 400865-44-3 USPATFULL

CN 2-Propenoic acid, 1,1,4,4-tetramethyl-1,4-butanediyl ester, polymer with ethenylbenzene, ethenylphenol and 1-ethylcyclohexyl 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

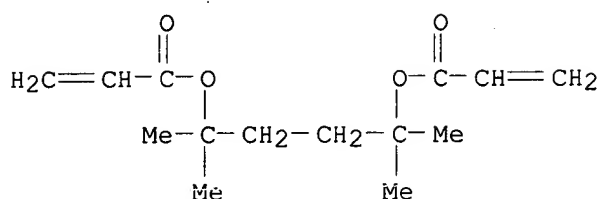
CRN 251909-25-8

CMF C11 H18 O2



CM 2

CRN 188837-15-2
CMF C14 H22 O4



CM 3

CRN 31257-96-2
CMF C8 H8 O
CCI IDS
CDES 8:ID



D1-OH

D1-CH=CH2

CM 4

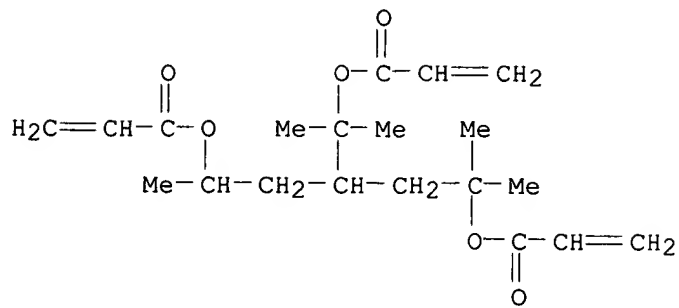
CRN 100-42-5
CMF C8 H8

H2C=CH-Ph

RN 400865-46-5 USPATFULL
CN 2-Propenoic acid, 1,1,5-trimethyl-3-[1-methyl-1-[(1-oxo-2-propenyl)oxy]ethyl]-1,5-propanediyl ester, polymer with ethenylbenzene, ethenylphenol and 1-ethylcyclohexyl 2-propenoate (9CI) (CA INDEX NAME)

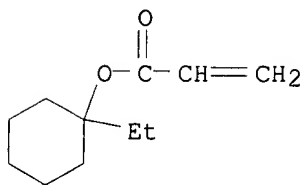
CM 1

CMF C20 H30 O6



CM 2

CMF C11 H18 O2



CM 3

CDES 8:ID

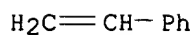


D1-OH

$$\text{D1}-\text{CH}=\text{CH}_2$$

CM 4

CMF C8 H8



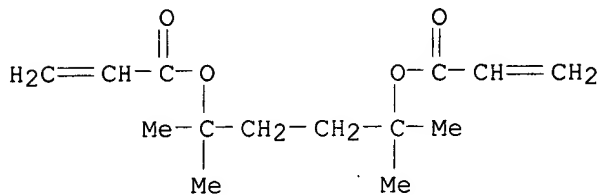
RN 400865-47-6 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with ethenylbenzene, ethenylphenol and 1,1,4,4-tetramethyl-1,4-
butanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 188837-15-2

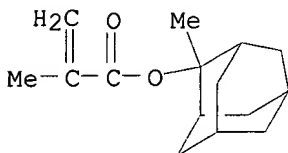
CMF C14 H22 O4



CM 2

CRN 177080-67-0

CMF C15 H22 O2



CM 3

CRN 31257-96-2

CMF C8 H8 O

CCI IDS

CDES 8:ID



D1-OH

D1-CH=CH₂

CM 4

CRN 100-42-5
CMF C8 H8

H₂C=CH-Ph

L17 ANSWER 2 OF 167 USPATFULL

ACCESSION NUMBER: 2002:54559 USPATFULL

TITLE: Novel **copolymer**, **photoresist**
composition, and process for forming **resist**
pattern with high aspect ratio

INVENTOR(S): Nakamura, Tsuyoshi, Kanagawa, JAPAN
Ikegawa, Taeko, Kanagawa, JAPAN
Sawano, Atsushi, Kanagawa, JAPAN
Doi, Kousuke, Kanagawa, JAPAN

PATENT ASSIGNEE(S): Kohara, Hidekatsu, Kanagawa, JAPAN
TOKYO OHKA KOGYO CO., LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002031720	A1	20020314
APPLICATION INFO.:	US 2001-901657	A1	20010711 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-214451	20000714
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue, N.W., Washington, DC, 20037	
NUMBER OF CLAIMS:	13	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	745	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel **copolymer** includes a repeating unit (B) derived from
an unsaturated carboxylic anhydride, a repeating unit (C) represented by
Formula (II), and a repeating unit (D) represented by Formula (III).
##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

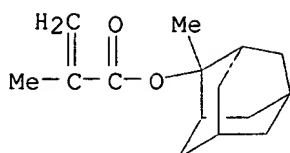
IT **348129-45-3**, Allyltrimethylsilane;maleic anhydride;2-
methyladamantyl methacrylate copolymer
(new copolymers for deep UV workable photoresists with good light
transmittance and high sensitivity and resoln. and method for forming
resist patterns with high aspect ratio using copolymers)

RN 348129-45-3 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 2,5-furandione and trimethyl-2-propenylsilane (9CI) (CA
INDEX NAME)

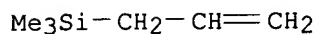
CM 1

CRN 177080-67-0
CMF C15 H22 O2



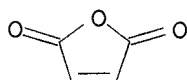
CM 2

CRN 762-72-1
CMF C6 H14 Si



CM 3

CRN 108-31-6
CMF C4 H2 O3



L17 ANSWER 3 OF 167 USPATFULL
 ACCESSION NUMBER: 2002:54558 USPATFULL
 TITLE: Novel **copolymer**, **photoresist**
 composition, and process for forming **resist**
 pattern with high aspect ratio
 INVENTOR(S): Nakamura, Tsuyoshi, Kanagawa, JAPAN
 Ikegawa, Taeko, Kanagawa, JAPAN
 Sawano, Atsushi, Kanagawa, JAPAN
 Doi, Kousuke, Kanagawa, JAPAN
 Kohara, Hidekatsu, Kanagawa, JAPAN
 PATENT ASSIGNEE(S): TOKYO OHKA KOGYO CO., LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002031719	A1	20020314
APPLICATION INFO.:	US 2001-901646	A1	20010711 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-214450	20000714
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE, MION, ZINN, MACPEAK & SEAS, 2100 Pennsylvania Avenue, N.W., Washington, DC, 20037	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	805	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel **copolymer** includes a repeating unit (A) represented by, for example, Formula (I) below, and a repeating unit (B) derived from an unsaturated carboxylic anhydride. The novel **copolymer**

is suitable for the preparation of a **photoresist** composition that has satisfactory transparency, high sensitivity and definition and exhibits satisfactory DOF properties in the field of photolithography using a deep UV light source. By the use of the **photoresist** composition, a process forms a **resist** pattern with a high aspect ratio. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **391208-99-4P**, Allyltrimethylsilane;1-ethyl-1-cyclohexyl methacrylate;maleic anhydride;2-methyl-2-adamantyl methacrylate copolymer
391209-01-1P, 1-Ethyl-1-cyclohexyl methacrylate;maleic anhydride copolymer
391209-02-2P, Allyltrimethylsilane;1-ethyl-1-cyclohexyl methacrylate;maleic anhydride copolymer
 (new copolymers for deep UV workable photoresists with good light transmittance and high sensitivity and resolu. and method for forming resist patterns with high aspect ratio using copolymers)

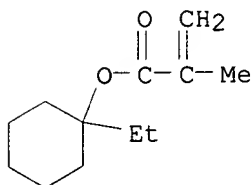
RN 391208-99-4 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 1-ethylcyclohexyl 2-methyl-2-propenoate, 2,5-furandione and trimethyl-2-propenylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 274248-09-8

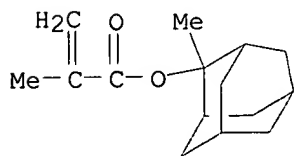
CMF C12 H20 O2



CM 2

CRN 177080-67-0

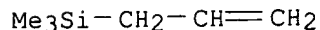
CMF C15 H22 O2



CM 3

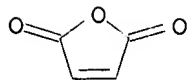
CRN 762-72-1

CMF C6 H14 Si



CM 4

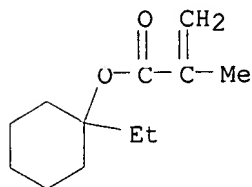
CRN 108-31-6
CMF C4 H2 O3



RN 391209-01-1 USPATFULL
CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclohexyl ester, polymer with
2,5-furandione (9CI) (CA INDEX NAME)

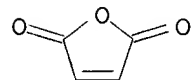
CM 1

CRN 274248-09-8
CMF C12 H20 O2



CM 2

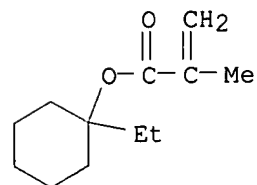
CRN 108-31-6
CMF C4 H2 O3



RN 391209-02-2 USPATFULL
CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclohexyl ester, polymer with
2,5-furandione and trimethyl-2-propenylsilane (9CI) (CA INDEX NAME)

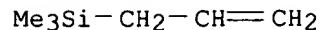
CM 1

CRN 274248-09-8
CMF C12 H20 O2



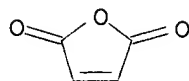
CM 2

CRN 762-72-1
CMF C6 H14 Si



CM 3

CRN 108-31-6
CMF C4 H2 O3



L17 ANSWER 4 OF 167 USPATFULL
ACCESSION NUMBER: 2002:34281 USPATFULL
TITLE: Chemical amplification type positive resist
INVENTOR(S): Uetani, Yasunori, Toyonaka, JAPAN
Oohashi, Kenji, Yawata, JAPAN
Inoue, Hiroki, Toyonaka, JAPAN
PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Osaka, JAPAN
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6348297	B1	20020219
APPLICATION INFO.:	US 2000-533986		20000324 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-92990	19990331
	JP 1999-315264	19991105
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ashton, Rosemary	
LEGAL REPRESENTATIVE:	Birch, Stewart, Kolasch & Birch, LLP	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	1138	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemical amplification type positive **resist** composition which is good in resolution, provide a good pattern profile under exposure using light of wavelength of 220 nm or shorter even when applied on a basic substrate or a low reflectance substrate and which comprises an **acid generator** comprising an aliphatic sulfonium salt represented by the following formula (I): ##STR1##

wherein Q.^{sup.1} represents an alkyl group, Q.^{sup.2} represents an alkyl or a residue of an **alicyclic** hydrocarbon and m represents an integer of 1 to 8; and onium salt selected from triphenylsulfonium salts represented by the following formula (IIa) and diphenyliodonium salts represented by the following formula (IIb): ##STR2##

wherein Q.^{sup.3}, Q.^{sup.4}, Q.^{sup.5}, Q.^{sup.6} and Q.^{sup.7} each independently represent a hydrogen atom, a hydroxyl group, an alkyl group having 1 to 6 carbon atoms, an alkoxy group having 1 to 6 carbon atoms, and q and p

represent a integer of 4 to 8; and (2) a **resin** which has a polymerization unit with a group unstable to an acid, and is insoluble or barely soluble in alkali by itself but changes soluble in alkali by an action of the acid, is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 195000-67-0P, .alpha.-Methacryloyloxy-.gamma.-butyrolactone-2-

methyl-2-adamantyl methacrylate copolymer 258879-89-9P,

.alpha.-Methacryloyloxy-.gamma.-butyrolactone;2-ethyl-2-adamantyl

methacrylate;3-hydroxy-1-adamantyl methacrylate copolymer

299416-56-1P, 2-Ethyl-2-adamantyl methacrylate-3-hydroxy-1-

adamantyl methacrylate-norbornene-maleic anhydride copolymer

(manuf. of resin for chem.-amplified pos. resist contg.)

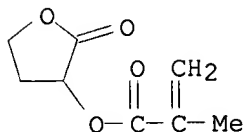
RN 195000-67-0 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

CM 1

CRN 195000-66-9

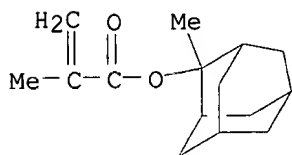
CMF C8 H10 O4



CM 2

CRN 177080-67-0

CMF C15 H22 O2



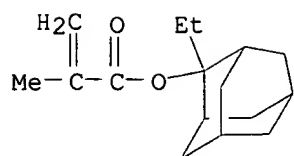
RN 258879-89-9 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate
and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX
NAME)

CM 1

CRN 209982-56-9

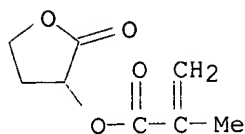
CMF C16 H24 O2



CM 2

CRN 195000-66-9

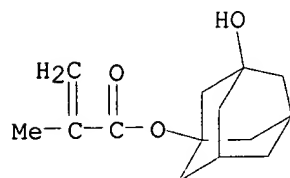
CMF C8 H10 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



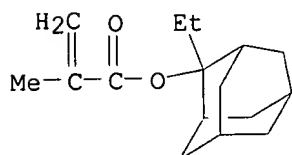
RN 299416-56-1 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione and
3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

CM 1

CRN 209982-56-9

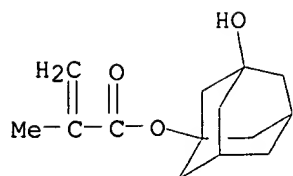
CMF C16 H24 O2



CM 2

CRN 115372-36-6

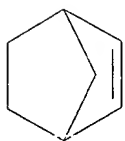
CMF C14 H20 O3



CM 3

CRN 498-66-8

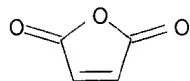
CMF C7 H10



CM 4

CRN 108-31-6

CMF C4 H2 O3



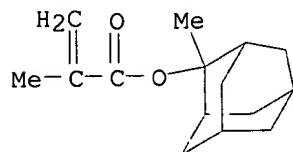
IT **177080-67-0P**, 2-Methyl-2-adamantyl methacrylate

209982-56-9P

(synthesis of, for manuf. of resin for chem.-amplified pos. resist)

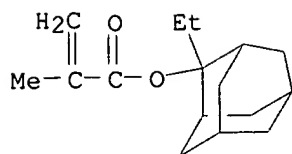
RN 177080-67-0 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester
(9CI) (CA INDEX NAME)



RN 209982-56-9 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester
(9CI) (CA INDEX NAME)



L17 ANSWER 5 OF 167 USPATFULL
 ACCESSION NUMBER: 2002:27067 USPATFULL
 TITLE: Chemical amplifying type positive **resist**
 composition and sulfonium salt
 INVENTOR(S): Uetani, Yasunori, Osaka, JAPAN
 Oohashi, Kenji, Yawata-shi, JAPAN
 Kamabuchi, Akira, Ashiya-shi, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002015913	A1	20020207
APPLICATION INFO.:	US 2001-886386	A1	20010622 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-189120	20000623
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2075	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemical amplifying type positive **resist** composition which provides a **resist** pattern having an exceedingly improved line edge roughness, and is excellent in various **resist** performances such as dry etching resistance, sensitivity and resolution; and comprises:

(A) an **acid generator** containing (a) a sulfonium salt represented by the following formula (I): ##STR1##

wherein Q.sup.1 and Q.sup.2 is alkyl or a cycloalkyl, or Q.sup.1 and Q.sup.2 form, together with a sulfur atom to which Q.sup.1 and Q.sup.2 are adjacent, an heteroalicyclic group; Q.sup.3 represents a hydrogen atom, Q.sup.4 represents alkyl or a cycloalkyl, or Q.sup.3 and Q4 form, together with a CHC(O) group to which Q.sup.3 and Q4 are adjacent, a 2-oxocycloalkyl group; and Q.sup.5SO.sub.3.sup.- represents an organosulfonate ion, and

(b) at least one onium salt selected from a triphenylsulfonium salt represented by the following formula (IIa), and a diphenyliodonium salt represented by the following formula (IIb); ##STR2##

wherein P.sup.1 to P.sup.5 represent hydrogen, a hydroxyl group, alkyl, or alkoxy; and P.sup.6SO.sub.3.sup.- and P.sup.7SO.sub.3.sup.- each independently represent an organosulfonate ion; and

(B) a **resin** which has a polymerization unit having a group instable against an acid, and is alkali-insoluble or -slightly soluble itself, but is converted to alkali-soluble by the action of an acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 341969-10-6P

(chem. amplifying type pos. resist compn. contg. resin)

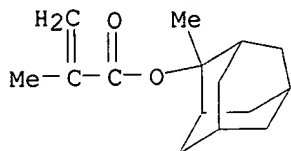
RN 341969-10-6 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 4-ethenylphenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

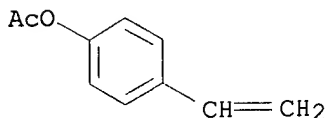
CMF C15 H22 O2



CM 2

CRN 2628-16-2

CMF C10 H10 O2



IT 258879-89-9P 299416-56-1P 341969-10-6DP,

p-Acetoxystyrene-2-methyl-2-admantylmethacrylate copolymer, hydrolyzed
364736-22-1P, 2-Ethyl-2-adamantyl methacrylate-5-methacryloyloxy-
2,6-norbornanelactone-.alpha.-methacryloyloxy-.gamma.-butyrolactone
copolymer

(chem. amplifying type pos. resist compn. contg. resin)

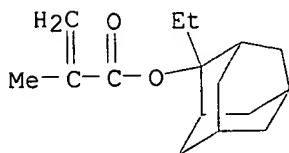
RN 258879-89-9 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate
and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX
NAME)

CM 1

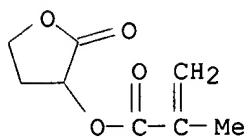
CRN 209982-56-9

CMF C16 H24 O2



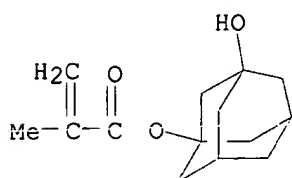
CM 2

CRN 195000-66-9
CMF C8 H10 O4



CM 3

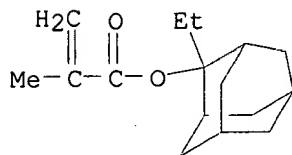
CRN 115372-36-6
CMF C14 H20 O3



RN 299416-56-1 USPATFULL
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione and
3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

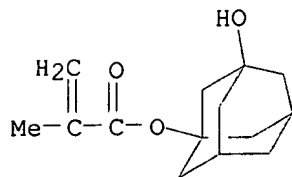
CM 1

CRN 209982-56-9
CMF C16 H24 O2



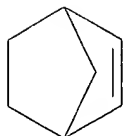
CM 2

CRN 115372-36-6
CMF C14 H20 O3



CRN 498-66-8

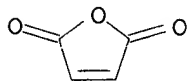
CMF C7 H10



CM 4

CRN 108-31-6

CMF C4 H2 O3



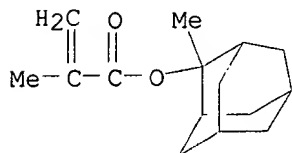
RN 341969-10-6 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with 4-ethenylphenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

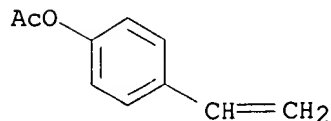
CMF C15 H22 O2



CM 2

CRN 2628-16-2

CMF C10 H10 O2



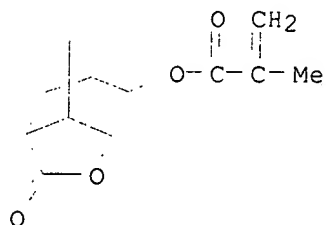
RN 364736-22-1 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl
2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 254900-07-7

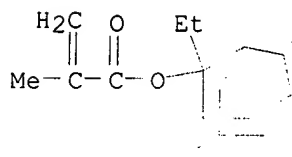
CMF C12 H14 O4



CM 2

CRN 209982-56-9

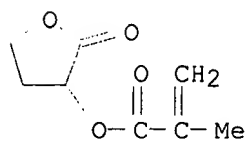
CMF C16 H24 O2



CM 3

CRN 195000-66-9

CMF C8 H10 O4



L17 ANSWER 1 OF 167 USPATFULL

ACCESSION NUMBER: 2002:60870 USPATFULL
TITLE: Crosslinked positive-working photoresist composition
INVENTOR(S): Oomori, Katsumi, Chigasaki-shi, JAPAN
Kinoshita, Yohei, Sagamihara-shi, JAPAN
Yamada, Tomotaka, Atsugi-shi, JAPAN
Takayama, Toshikazu, Kanagawa-ken, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002034704	A1	20020321
APPLICATION INFO.:	US 2001-928399	A1	20010814 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-250174	20000821
	JP 2000-250175	20000821
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	765	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 2 OF 167 USPATFULL

ACCESSION NUMBER: 2002:54559 USPATFULL
TITLE: Novel copolymer, photoresist composition, and process for forming resist pattern with high aspect ratio
INVENTOR(S): Nakamura, Tsuyoshi, Kanagawa, JAPAN
Ikegawa, Taeko, Kanagawa, JAPAN
Sawano, Atsushi, Kanagawa, JAPAN
Doi, Kousuke, Kanagawa, JAPAN
Kohara, Hidekatsu, Kanagawa, JAPAN
PATENT ASSIGNEE(S): TOKYO OHKA KOGYO CO., LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002031720	A1	20020314
APPLICATION INFO.:	US 2001-901657	A1	20010711 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-214451	20000714
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue, N.W., Washington, DC, 20037	
NUMBER OF CLAIMS:	13	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	745	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 3 OF 167 USPATFULL

ACCESSION NUMBER: 2002:54558 USPATFULL
TITLE: Novel copolymer, photoresist composition, and process for forming resist pattern with high aspect ratio

INVENTOR(S): Nakamura, Tsuyoshi, Kanagawa, JAPAN
 Ikegawa, Taeko, Kanagawa, JAPAN
 Sawano, Atsushi, Kanagawa, JAPAN
 Doi, Kousuke, Kanagawa, JAPAN
 Kohara, Hidekatsu, Kanagawa, JAPAN
 PATENT ASSIGNEE(S): TOKYO OHKA KOGYO CO., LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002031719	A1	20020314
APPLICATION INFO.:	US 2001-901646	A1	20010711 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-214450	20000714
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE, MION, ZINN, MACPEAK & SEAS, 2100 Pennsylvania Avenue, N.W., Washington, DC, 20037	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	805	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 4 OF 167 USPATFULL
 ACCESSION NUMBER: 2002:34281 USPATFULL
 TITLE: Chemical amplification type positive **resist**
 INVENTOR(S): Uetani, Yasunori, Toyonaka, JAPAN
 Oohashi, Kenji, Yawata, JAPAN
 Inoue, Hiroki, Toyonaka, JAPAN
 PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Osaka, JAPAN
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6348297	B1	20020219
APPLICATION INFO.:	US 2000-533986		20000324 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-92990	19990331
	JP 1999-315264	19991105
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ashton, Rosemary	
LEGAL REPRESENTATIVE:	Birch, Stewart, Kolasch & Birch, LLP	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	1138	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 5 OF 167 USPATFULL
 ACCESSION NUMBER: 2002:27067 USPATFULL
 TITLE: Chemical amplifying type positive **resist**
 composition and sulfonium salt
 INVENTOR(S): Uetani, Yasunori, Osaka, JAPAN
 Oohashi, Kenji, Yawata-shi, JAPAN
 Kamabuchi, Akira, Ashiya-shi, JAPAN

NUMBER	KIND	DATE
-----	-----	-----

PATENT INFORMATION: US 2002015913 A1 20020207
APPLICATION INFO.: US 2001-886386 A1 20010622 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-189120	20000623
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2075	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 6 OF 167 USPATFULL
ACCESSION NUMBER: 2002:16789 USPATFULL
TITLE: Radiation-sensitive **resin** composition
INVENTOR(S): Nishimura, Yukio, Yokkaichi, JAPAN
Yamahara, Noboru, Yokkaichi, JAPAN
Yamamoto, Masafumi, Yokkaichi, JAPAN
Kajita, Toru, Yokkaichi, JAPAN
Shimokawa, Tsutomu, Suzuka, JAPAN
Ito, Hiroshi, San Jose, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002009668	A1	20020124
APPLICATION INFO.:	US 2001-879894	A1	20010614 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-182297	20000616
	JP 2001-108824	20010406
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Supervisor, Patent Prosecution Services, PIPER MARBURY RUDNICK & WOLFE LLP, 1200 Nineteenth Street, N.W., Washington, DC, 20036-2412	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2918	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 7 OF 167 USPATFULL
ACCESSION NUMBER: 2002:16788 USPATFULL
TITLE: Radiation-sensitive **resin** composition
INVENTOR(S): Nishimura, Yukio, Yokkaichi, JAPAN
Douki, Katsuji, Ithaca, NY, UNITED STATES
Kajita, Toru, Yokkaichi, JAPAN
Shimokawa, Tsutomu, Suzuka, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002009667	A1	20020124
APPLICATION INFO.:	US 2001-874977	A1	20010607 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-173708	20000609
	JP 2001-95877	20010329
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	

LEGAL REPRESENTATIVE: Supervisor, Patent Prosecution Services, PIPER MARBURY
RUDNICK & WOLFE LLP, 12000 Nineteenth Street, N.W.,
Washington, DC, 20036-2412
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
LINE COUNT: 2110
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 8 OF 167 USPATFULL
ACCESSION NUMBER: 2002:16787 USPATFULL
TITLE: Positive **photoresist** composition
INVENTOR(S): Sato, Kenichiro, Shizuoka, JAPAN
Aoai, Toshiaki, Shizuoka, JAPAN

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002009666	A1	20020124	
APPLICATION INFO.:	US 2001-834639	A1	20010416	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-115497	20000417
	JP 2000-215574	20000717
	JP 2000-231670	20000731

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100
Pennsylvania Avenue, N.W., Washington, DC, 20037

NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
LINE COUNT: 1642
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 9 OF 167 USPATFULL
ACCESSION NUMBER: 2002:12648 USPATFULL
TITLE: Novel ester compounds, **polymers**,
resist compositions and patterning process
INVENTOR(S): Nishi, Tsunehiro, Niigata-ken, JAPAN
Hasegawa, Koji, Niigata-ken, JAPAN
Watanabe, Takeru, Niigata-ken, JAPAN
Kinsho, Takeshi, Niigata-ken, JAPAN
Nakashima, Mutsuo, Niigata-ken, JAPAN
Tachibana, Seiichiro, Niigata-ken, JAPAN
Hatakeyama, Jun, Niigata-ken, JAPAN
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, JAPAN (non-U.S.
corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002007031	A1	20020117	
APPLICATION INFO.:	US 2001-842007	A1	20010426	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-127532	20000427

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON
BLVD., SUITE 1400, ARLINGTON, VA, 22201
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 1531

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 10 OF 167 USPATFULL
ACCESSION NUMBER: 2002:12205 USPATFULL
TITLE: Chemical amplification type positive **resist**
compositions and sulfonium salts
INVENTOR(S): Inoue, Hiroki, Kashiba-shi, JAPAN
Uetani, Yasunori, Toyonaka-shi, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002006582	A1	20020117
APPLICATION INFO.:	US 2001-849523	A1	20010507 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-135580	20000509
	JP 2000-255119	20000825
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
LINE COUNT:	988	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 11 OF 167 USPATFULL
ACCESSION NUMBER: 2002:8569 USPATFULL
TITLE: **Polymer**, chemically amplified **resist**
composition and patterning process
INVENTOR(S): Hatakeyama, Jun, Niigata-ken, JAPAN
Watanabe, Jun, Niigata-ken, JAPAN
Harada, Yuji, Niigata-ken, JAPAN
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Chiyoda-ku, JAPAN
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002004569	A1	20020110
APPLICATION INFO.:	US 2001-842114	A1	20010426 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-127513	20000427
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1226	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 12 OF 167 USPATFULL
ACCESSION NUMBER: 2002:8180 USPATFULL
TITLE: Novel ester compounds, **polymers**,
resist compositions and patterning process
INVENTOR(S): Hasegawa, Koji, Niigata-ken, JAPAN
Nishi, Tsunehiro, Niigata-ken, JAPAN
Kinsho, Takeshi, Niigata-ken, JAPAN
Watanabe, Takeru, Niigata-ken, JAPAN
Nakashima, Matsuo, Niigata-ken, JAPAN

Tachibana, Seiichiro, Niigata-ken, JAPAN
Hatakeyama, Jun, Niigata-ken, JAPAN
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, JAPAN (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002004178	A1	20020110
APPLICATION INFO.:	US 2001-837219	A1	20010419 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-119410	20000420
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	1600	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 13 OF 167 USPATFULL
ACCESSION NUMBER: 2001:229365 USPATFULL
TITLE: **Polymers, resist** compositions and
patterning process
INVENTOR(S): Nishi, Tsunehiro, Niigata-ken, Japan
Nakashima, Mutsuo, Niigata-ken, Japan
Tachibana, Seiichiro, Niigata-ken, Japan
Kinsho, Takeshi, Niigata-ken, Japan
Hasegawa, Koji, Niigata-ken, Japan
Watanabe, Takeru, Niigata-ken, Japan
Hatakeyama, Jun, Niigata-ken, Japan
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001051316	A1	20011213
APPLICATION INFO.:	US 2001-842396	A1	20010426 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-129042	20000428
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1459	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 14 OF 167 USPATFULL
ACCESSION NUMBER: 2001:229364 USPATFULL
TITLE: **Polymers, resist** compositions and
patterning process
INVENTOR(S): Nishi, Tsunehiro, Niigata-ken, Japan
Tachibana, Seiichiro, Niigata-ken, Japan
Nakashima, Mutsuo, Niigata-ken, Japan
Kinsho, Takeshi, Niigata-ken, Japan
Watanabe, Takeru, Niigata-ken, Japan

PATENT ASSIGNEE(S): Hasegawa, Koji, Niigata-ken, Japan
Hatakeyama, Jun, Niigata-ken, Japan
Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001051315	A1	20011213
APPLICATION INFO.:	US 2001-842113	A1	20010426 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-129054	20000428
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1516	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 15 OF 167 USPATFULL
ACCESSION NUMBER: 2001:223858 USPATFULL
TITLE: Pattern formation method
INVENTOR(S): Kishimura, Shinji, Hyogo, Japan
Katsuyama, Akiko, Kyoto, Japan
Sasago, Masaru, Osaka, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001049075	A1	20011206
APPLICATION INFO.:	US 2000-520805	A1	20000308 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-61184	19990309
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	NIXON PEABODY, LLP, 8180 GREENSBORO DRIVE, SUITE 800, MCLEAN, VA, 22102	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Page(s)	
LINE COUNT:	1028	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 16 OF 167 USPATFULL
ACCESSION NUMBER: 2001:218153 USPATFULL
TITLE: Chemically amplified positive resist
composition
INVENTOR(S): Uetani, Yasunori, Osaka, Japan
Fujishima, Hiroaki, Osaka, Japan
Takata, Yoshiyuki, Osaka, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001046641	A1	20011129
APPLICATION INFO.:	US 2001-791756	A1	20010226 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-51018	20000228

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS
CHURCH, VA, 22040-0747
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
LINE COUNT: 775
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 17 OF 167 USPATFULL
ACCESSION NUMBER: 2001:212078 USPATFULL
TITLE: **Photoresist** compositions comprising blends of
ionic and non-ionic **photoacid**
generators
INVENTOR(S): Trefonas, Peter, III, Medway, MA, United States
PATENT ASSIGNEE(S): Shipley Company, L.L.C., Marlborough, MA, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044072	A1	20011122
APPLICATION INFO.:	US 2001-860938	A1	20010518 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1998-150965, filed on 10 Sep 1998, GRANTED, Pat. No. US 6280911		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	EDWARDS & ANGELL, LLP, Dike, Bronstein, Roberts & Cushman, IP Group, P.O. Box 9169, Boston, MA, 02209		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
LINE COUNT:	808		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 18 OF 167 USPATFULL
ACCESSION NUMBER: 2001:212077 USPATFULL
TITLE: Novel ester compounds, **polymers**,
resist compositions and patterning process
INVENTOR(S): Hasegawa, Koji, Niigata-ken, Japan
Nishi, Tsunehiro, Niigata-ken, Japan
Kinsho, Takeshi, Niigata-ken, Japan
Watanabe, Takeru, Niigata-ken, Japan
Nakashima, Mutsuo, Niigata-ken, Japan
Tachibana, Seiichiro, Niigata-ken, Japan
Hatakeyama, Jun, Niigata-ken, Japan
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd, Tokyo, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044071	A1	20011122
APPLICATION INFO.:	US 2001-837378	A1	20010419 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-119410	20000420
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1476	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 19 OF 167 USPATFULL
ACCESSION NUMBER: 2001:212076 USPATFULL
TITLE: Chemically amplified positive resist
composition
INVENTOR(S): Uetani, Yasunori, Osaka, Japan
Yamada, Airi, Osaka, Japan
Miya, Yoshiko, Muko-shi, Japan
Takata, Yoshiyuki, Osaka, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044070	A1	20011122
APPLICATION INFO.:	US 2001-824227	A1	20010403 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-101868	20000404
	JP 2000-133328	20000502
	JP 2000-209505	20000711
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
LINE COUNT:	894	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 20 OF 167 USPATFULL
ACCESSION NUMBER: 2001:199869 USPATFULL
TITLE: Chemical amplification, positive resist
compositions
INVENTOR(S): Ohsawa, Youichi, Nakakubiki-gun, Japan
Watanabe, Jun, Nakakubiki-gun, Japan
Takeda, Takanobu, Nakakubiki-gun, Japan
Seki, Akihiro, Nakakubiki-gun, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001038971	A1	20011108
APPLICATION INFO.:	US 2001-799052	A1	20010306 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-61350	20000307
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Arlington Courthouse Plaza I, Suite 1400, 2200 Clarendon Boulevard, Arlington, VA, 22201	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2083	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 21 OF 167 USPATFULL
ACCESSION NUMBER: 2001:194079 USPATFULL
TITLE: Chemical amplification type resist
composition
INVENTOR(S): Takeda, Takanobu, Nakakubiki-gun, Japan
Watanabe, Osamu, Nakakubiki-gun, Japan
Watanabe, Jun, Nakakubiki-gun, Japan

PATENT ASSIGNEE(S): Hatakeyama, Jun, Nakakubiki-gun, Japan
Nishi, Tsunehiro, Nakakubiki-gun, Japan
Kinsho, Takeshi, Nakakubiki-gun, Japan
Shin-Etsu Chemical Co., Ltd. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001036593	A1	20011101
APPLICATION INFO.:	US 2001-760716	A1	20010117 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-7888	20000117
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., ARLINGTON COURTHOUSE PLAZA I, SUITE 1400, 2200 CLARENDON BOULEVARD, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1033	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 22 OF 167 USPATFULL
ACCESSION NUMBER: 2001:192882 USPATFULL
TITLE: Chemically amplified positive **resist**
composition and patterning method
INVENTOR(S): Takeda, Takanobu, Niigata-ken, Japan
Watanabe, Jun, Niigata-ken, Japan
Takemura, Katsuya, Niigata-ken, Japan
Koizumi, Kenji, Niigata-ken, Japan
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Chiyoda-ku, Japan
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001035394	A1	20011101
APPLICATION INFO.:	US 2001-814049	A1	20010322 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-79414	20000322
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	13	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	2498	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 23 OF 167 USPATFULL
ACCESSION NUMBER: 2001:188362 USPATFULL
TITLE: Chemical amplification, positive **resist**
compositions
INVENTOR(S): Ohsawa, Youichi, Nakakubiki-gun, Japan
Watanabe, Jun, Nakakubiki-gun, Japan
Takeda, Takanobu, Nakakubiki-gun, Japan
Seki, Akihiro, Nakakubiki-gun, Japan

NUMBER	KIND	DATE
--------	------	------

PATENT INFORMATION: US 2001033994 A1 20011025
APPLICATION INFO.: US 2001-799009 A1 20010306 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-61357	20000307
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Arlington Courthouse Plaza 1, Suite 1400, 2200 Clarendon Boulevard, Arlington, VA, 22201	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2076	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 24 OF 167 USPATFULL
ACCESSION NUMBER: 2001:188358 USPATFULL
TITLE: **Resist** compositions and patterning process
INVENTOR(S): Hatakeyama, Jun, Niigata-ken, Japan
Ohsawa, Youichi, Niigata-ken, Japan
Nishi, Tsunehiro, Niigata-ken, Japan
Watanabe, Jun, Niigata-ken, Japan
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001033990	A1	20011025
APPLICATION INFO.:	US 2001-811695	A1	20010320 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-77496	20000321
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1431	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 25 OF 167 USPATFULL
ACCESSION NUMBER: 2001:188355 USPATFULL
TITLE: Chemically amplified positive **resist**
composition
INVENTOR(S): Uetani, Yasunori, Osaka, Japan
Kim, Seong-Hyeon, Seaul, Korea, Republic of

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001033987	A1	20011025
APPLICATION INFO.:	US 2000-726476	A1	20001201 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-344446	19991203
	JP 2000-203648	20000705
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747	

NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
LINE COUNT: 605
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 26 OF 167 USPATFULL
ACCESSION NUMBER: 2001:184995 USPATFULL
TITLE: **Polymers** containing oxygen and sulfur
alicyclic units and **photoresist**
compositions comprising same
INVENTOR(S): Barclay, George G., Jefferson, MA, United States
Yueh, Wang, Shrewsbury, MA, United States
PATENT ASSIGNEE(S): Shipley Company, L.L.C., Marlborough, MA, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6306554	B1	20011023
APPLICATION INFO.:	US 2000-567634		20000509 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Hamilton, Cynthia		
LEGAL REPRESENTATIVE:	Corless, Peter F., Frickey, Darryl P. Edwards & Angell, LLP		
NUMBER OF CLAIMS:	45		
EXEMPLARY CLAIM:	1,16		
LINE COUNT:	1128		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 27 OF 167 USPATFULL
ACCESSION NUMBER: 2001:182263 USPATFULL
TITLE: Chemical amplification **resist** compositions
INVENTOR(S): Takeda, Takanobu, Nakakubiki-gun, Japan
Watanabe, Osamu, Nakakubiki-gun, Japan
Hirahara, Kazuhiro, Nakakubiki-gun, Japan
Takemura, Katsuya, Nakakubiki-gun, Japan
Kusaki, Wataru, Nakakubiki-gun, Japan
Seki, Akihiro, Nakakubiki-gun, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001031421	A1	20011018
APPLICATION INFO.:	US 2001-800512	A1	20010308 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-64277	20000309
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Suite 1400, Arlington Courthouse Plaza, 2200 Clarendon Boulevard, Arlington, VA, 22201	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
LINE COUNT:	942	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 28 OF 167 USPATFULL
ACCESSION NUMBER: 2001:178770 USPATFULL
TITLE: **Resin** useful for **resist**,
resist composition and pattern forming process
using the same
INVENTOR(S): Okino, Takeshi, Yokohama, Japan

PATENT ASSIGNEE(S): Asakawa, Koji, Kawasaki, Japan
Shida, Naomi, Minato-Ku, Japan
Ushirogouchi, Toru, Yokohama, Japan
Saito, Satoshi, Yamato, Japan
Kabushiki Kaisha Toshiba, Kawasaki, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6303266	B1	20011016
APPLICATION INFO.:	US 1999-401181		19990923 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-269320	19980924
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ashton, Rosemary E.	
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	4	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	2905	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 29 OF 167 USPATFULL
ACCESSION NUMBER: 2001:170853 USPATFULL
TITLE: (Meth) acrylate derivative, **polymer** and
photoresist composition having lactone
structure, and method for forming pattern by using it
INVENTOR(S): Maeda, Katsumi, Tokyo, Japan
Iwasa, Shigeyuki, Tokyo, Japan
Nakano, Kaichiro, Tokyo, Japan
Hasegawa, Etsuo, Tokyo, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001026901	A1	20011004
APPLICATION INFO.:	US 2000-750116	A1	20001229 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-188853	19980703
	JP 1998-328491	19981118
	WO 1999-JP3580	19990702
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	McGinn & Gibb, PLLC, Suite 200, 8321 Old Courthouse Road, Vienna, VA, 22182-3817	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	1084	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 30 OF 167 USPATFULL
ACCESSION NUMBER: 2001:165553 USPATFULL
TITLE: Photosensitive **polymer** including
copolymer of alkyl vinyl ether and
resist composition containing the same
INVENTOR(S): Choi, Sang-Jun, Seoul, Korea, Republic of
Kim, Hyun-Woo, Seongnam-city, Korea, Republic of

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001024763	A1	20010927
APPLICATION INFO.:	US 2001-764150	A1	20010119 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-576053, filed on 23 May 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	KR 2000-20603	20000419
	KR 2000-2489	20000119
	US 2000-198761P	20000421 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	JONES VOLENTINE, LLC, SUITE 150, 12200 Sunrise Valley Drive, RESTON, VA, 20191	
NUMBER OF CLAIMS:	48	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	1090	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 31 OF 167 USPATFULL

ACCESSION NUMBER: 2001:162981 USPATFULL

TITLE: Positive **photoresist** composition containing **alicyclic** dissolution inhibitors

INVENTOR(S): Chang, Shang-Wern, Taipei, Taiwan, Province of China
 Li, Yen-Cheng, Sanchung, Taiwan, Province of China
 Lin, Shang-Ho, Taipei, Taiwan, Province of China
 Wang, Wen-Chieh, Chungho, Taiwan, Province of China

PATENT ASSIGNEE(S): Everlight USA, Inc., Pineville, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6294309	B1	20010925
APPLICATION INFO.:	US 2000-607943		20000630 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Baxter, Janet		
ASSISTANT EXAMINER:	Ashton, Rosemary		
LEGAL REPRESENTATIVE:	Bacon & Thomas		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
LINE COUNT:	369		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L17 ANSWER 32 OF 167 USPATFULL

ACCESSION NUMBER: 2001:160782 USPATFULL

TITLE: Radiation-sensitive **resin** composition

INVENTOR(S): Numata, Jun, Tokyo, Japan
 Suzuki, Aki, Tokyo, Japan
 Hara, Hiromichi, Tokyo, Japan
 Natsume, Norihiro, Tokyo, Japan
 Murata, Kiyoshi, Tokyo, Japan
 Yamamoto, Masafumi, Tokyo, Japan
 Soyano, Akimasa, Tokyo, Japan
 Kajita, Toru, Tokyo, Japan
 Shimokawa, Tsutomu, Tokyo, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001023050	A1	20010920

APPLICATION INFO.: US 2001-774714 A1 20010201 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-28456	20000204
	JP 2000-273962	20000908
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Supervisor, Patent Prosecution Services, PIPER MARBURY RUDNICK & WOLFE LLP, 1200 Nineteenth Street, N.W., Washington, DC, 20036-2412	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3425	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 33 OF 167 USPATFULL

ACCESSION NUMBER: 2001:157962 USPATFULL
TITLE: Positive photosensitive composition
INVENTOR(S): Kodama, Kunihiro, Shizuoka, Japan
Sato, Kenichiro, Shizuoka, Japan
Aoi, Toshiaki, Shizuoka, Japan
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6291130	B1	20010918
APPLICATION INFO.:	US 1999-361568		19990727 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-211137	19980727
	JP 1998-263392	19980917
	JP 1999-6662	19990113
	JP 1999-186809	19990630
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ashton, Rosemary E.	
LEGAL REPRESENTATIVE:	Sughrue, Mion, Zinn, Macpeak & Seas, PLLC	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2589	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 34 OF 167 USPATFULL

ACCESSION NUMBER: 2001:147641 USPATFULL
TITLE: Ester compounds, **polymers, resist**
compositions and patterning process
INVENTOR(S): Kinsho, Takeshi, Nakakubiki-gun, Japan
Nishi, Tsunehiro, Nakakubiki-gun, Japan
Kurihara, Hideshi, Usui-gun, Japan
Nakashima, Mutsuo, Nakakubiki-gun, Japan
Hasegawa, Koji, Nakakubiki-gun, Japan
Watanabe, Takeru, Nakakubiki-gun, Japan
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6284429	B1	20010904
APPLICATION INFO.:	US 2000-512108		20000224 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-47406	19990225
	JP 1999-174945	19990622
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ashton, Rosemary E.	
LEGAL REPRESENTATIVE:	Millen, White, Zelano & Branigan, P.C	
NUMBER OF CLAIMS:	19	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2016	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 35 OF 167 USPATFULL
 ACCESSION NUMBER: 2001:142055 USPATFULL
 TITLE: **Photoresist** compositions comprising blends of ionic and non-ionic **photoacid generators**
 INVENTOR(S): Trefonas, III, Peter, Medway, MA, United States
 PATENT ASSIGNEE(S): Shipley Company, L.L.C., Marlborough, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280911	B1	20010828
APPLICATION INFO.:	US 1998-150965		19980910 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Ashton, Rosemary E.		
LEGAL REPRESENTATIVE:	Corless, Peter F., Frickey, Darryl P. Edwards & Angell, LLP		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
LINE COUNT:	812		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 36 OF 167 USPATFULL
 ACCESSION NUMBER: 2001:142042 USPATFULL
 TITLE: Lactone-containing compounds, **polymers, resist** compositions, and patterning method
 INVENTOR(S): Hasegawa, Koji, Nakakubiki-gun, Japan
 Nishi, Tsunehiro, Nakakubiki-gun, Japan
 Kinsho, Takeshi, Nakakubiki-gun, Japan
 Hatakeyama, Jun, Nakakubiki-gun, Japan
 Watanabe, Osamu, Nakakubiki-gun, Japan
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280898	B1	20010828
APPLICATION INFO.:	US 1999-404763		19990924 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-270373	19980925
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Baxter, Janet	
ASSISTANT EXAMINER:	Ashton, Rosemary	
LEGAL REPRESENTATIVE:	Millen, White, Zelano & Branigan, P.C.	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	

LINE COUNT: 1654
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 37 OF 167 USPATFULL
ACCESSION NUMBER: 2001:142041 USPATFULL
TITLE: Photosensitive composition, method for forming pattern
using the same, and method for manufacturing electronic
parts
INVENTOR(S): Asakawa, Koji, Kawasaki, Japan
Kihara, Naoko, Matsudo, Japan
Shida, Naomi, Kawasaki, Japan
Ushirogouchi, Toru, Yokohama, Japan
Okino, Takeshi, Yokohama, Japan
Nakase, Makoto, Tokyo, Japan
Naito, Takuya, Kawasaki, Japan
Saito, Satoshi, Yokohama, Japan
PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Kawasaki-shi, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280897	B1	20010828
APPLICATION INFO.:	US 1997-997623		19971223 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-344037	19961224
	JP 1997-8819	19970121
	JP 1997-189929	19970715

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Chu, John S.
LEGAL REPRESENTATIVE: Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1,5,10
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 2966
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 38 OF 167 USPATFULL
ACCESSION NUMBER: 2001:139256 USPATFULL
TITLE: Chemically amplified positive **resist**
composition
INVENTOR(S): Nakanishi, Junji, Kyoto-shi, Japan
Takata, Yoshiyuki, Osaka, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001016298	A1	20010823
APPLICATION INFO.:	US 2001-770212	A1	20010129 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-21687	20000131

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS
CHURCH, VA, 22040-0747
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 591
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 39 OF 167 USPATFULL
ACCESSION NUMBER: 2001:133979 USPATFULL
TITLE: Chemically amplified positive resist
composition
INVENTOR(S): Uetani, Yasunori, Osaka, Japan
Fujishima, Hiroaki, Osaka, Japan
Takata, Yoshiyuki, Osaka, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001014428	A1	20010816
APPLICATION INFO.:	US 2000-741438	A1	20001221 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-364726	19991222
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
LINE COUNT:	584	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 40 OF 167 USPATFULL
ACCESSION NUMBER: 2001:125715 USPATFULL
TITLE: Positive silicone-containing photosensitive composition
INVENTOR(S): Yasunami, Shoichiro, Shizuoka, Japan
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6270941	B1	20010807
APPLICATION INFO.:	US 2000-493285		20000128 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-20224	19990128
	JP 1999-31591	19990209
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ashton, Rosemary E.	
LEGAL REPRESENTATIVE:	Sughrue, Mion, Zinn, Macpeak & Seas, PLLC	
NUMBER OF CLAIMS:	3	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1359	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 41 OF 167 USPATFULL
ACCESSION NUMBER: 2001:116737 USPATFULL
TITLE: **Alicyclic** dissolution inhibitors and positive
potoresist composition containing the same
INVENTOR(S): Chang, Shang-Wern, Taipei, Taiwan, Province of China
Li, Yen-Cheng, Sanchung, Taiwan, Province of China
Lin, Shang-Ho, Taipei, Taiwan, Province of China
Wang, Wen-Chieh, Chunggho, Taiwan, Province of China
PATENT ASSIGNEE(S): Everlight USA. Inc., Pineville, NC, United States (U.S.
corporation)

NUMBER	KIND	DATE
--------	------	------

PATENT INFORMATION: US 6265131 B1 20010724
 APPLICATION INFO.: US 2000-541498 20000403 (9)
 DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Ashton, Rosemary E.
 LEGAL REPRESENTATIVE: Bacon & Thomas, PLLC
 NUMBER OF CLAIMS: 14
 EXEMPLARY CLAIM: 1
 LINE COUNT: 355
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 42 OF 167 USPATFULL
 ACCESSION NUMBER: 2001:93685 USPATFULL
 TITLE: Preparation process for esters and **resist** materials
 INVENTOR(S): Takechi, Satoshi, Kawasaki, Japan
 Kikukawa, Tadashi, Kyoto, Japan
 PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6248920	B1	20010619
APPLICATION INFO.:	US 1997-996156		19971222 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-350765	19961227
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Geist, Gary	
ASSISTANT EXAMINER:	Oh, Taylor V.	
LEGAL REPRESENTATIVE:	Armstrong, Westerman, Hattori, McLeland & Naughton, LLP	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	946	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 43 OF 167 USPATFULL
 ACCESSION NUMBER: 2001:91622 USPATFULL
 TITLE: **Polymer, resist** composition and patterning process
 INVENTOR(S): Hatakeyama, Jun, Nakakubiki-gun, Japan
 Kinsho, Takeshi, Nakakubiki-gun, Japan
 Nakashima, Mutsuo, Nakakubiki-gun, Japan
 Hasegawa, Koji, Nakakubiki-gun, Japan

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001003772	A1	20010614
APPLICATION INFO.:	US 2000-726592	A1	20001201 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-342380	19991201
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Arlington Courthouse Plaza I, Suite 1400, 2200 Clarendon Boulevard, Arlington, VA, 22201	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1391	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 44 OF 167 USPATFULL
 ACCESSION NUMBER: 2001:91491 USPATFULL
 TITLE: Chemically amplified **resist** compositions and process for the formation of **resist** patterns
 INVENTOR(S): Takechi, Satoshi, Kawasaki-shi, Japan
 Kotachi, Akiko, Kawasaki-shi, Japan
 Nozaki, Koji, Kawasaki-shi, Japan
 Yano, Ei, Kawasaki-shi, Japan
 Watanabe, Keiji, Kawasaki-shi, Japan
 Namiki, Takahisa, Kawasaki-shi, Japan
 Igarashi, Miwa, Kawasaki-shi, Japan
 Makino, Yoko, Kawasaki-shi, Japan
 Takahashi, Makoto, Kawasaki-shi, Japan
 PATENT ASSIGNEE(S): FUJITSU LIMITED, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001003640	A1	20010614
	US 6329125	B2	20011211
APPLICATION INFO.:	US 2000-739259	A1	20001219 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-969368, filed on 28 Nov 1997, GRANTED, Pat. No. US 6200725 Continuation-in-part of Ser. No. US 1996-673739, filed on 27 Jun 1996, GRANTED, Pat. No. US 6013416		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-178717	19950714
	JP 1995-162287	19950628
	JP 1995-312722	19951130
	JP 1996-50264	19960307
	JP 1996-320105	19961129

DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: ARMSTRONG, WESTERMAN, HATTORI,, MCLELAND & NAUGHTON, LLP, 1725 K STREET, NW, SUITE 1000, WASHINGTON, DC, 20006

NUMBER OF CLAIMS: 11
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 2 Drawing Page(s)
 LINE COUNT: 4388
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 45 OF 167 USPATFULL
 ACCESSION NUMBER: 2001:86189 USPATFULL
 TITLE: Positive **resist** composition
 INVENTOR(S): Aoai, Toshiaki, Shizuoka, Japan
 Kondo, Shunichi, Shizuoka, Japan
 Yamaoka, Tsuguo, Chiba, Japan
 Sato, Kenichiro, Shizuoka, Japan
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6245485	B1	20010612
APPLICATION INFO.:	US 1998-75818		19980512 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-120919	19970512
	JP 1997-260399	19970925

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Huff, Mark F.
ASSISTANT EXAMINER: Clarke, Yvette M.
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak & Seas, PLLC
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
LINE COUNT: 2039
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 46 OF 167 USPATFULL
ACCESSION NUMBER: 2001:79255 USPATFULL
TITLE: Chemical amplifying type positive **resist**
composition
INVENTOR(S): Fujishima, Hiroaki, Toyonaka, Japan
Uetani, Yasunori, Toyonaka, Japan
Araki, Karou, Kyoto, Japan
PATENT ASSIGNEE(S): Sumitomo Chemical, Company Limited, Osaka, Japan
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6239231	B1	20010529
APPLICATION INFO.:	US 1999-384032		19990826 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-240143	19980826
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Lipman, Bernard	
LEGAL REPRESENTATIVE:	Birch, Stewart, Kolasch & Birch, LLP	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
LINE COUNT:	860	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 47 OF 167 USPATFULL
ACCESSION NUMBER: 2001:63853 USPATFULL
TITLE: Positive-working **photoresist** composition
INVENTOR(S): Hada, Hideo, Hiratsuka, Japan
Sato, Kazufumi, Sagamihara, Japan
Komano, Hiroshi, Samukawa-machi, Japan
PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Kanagawa-ken, Japan
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6225476	B1	20010501
APPLICATION INFO.:	US 2000-542952		20000404 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-102622, filed on 23 Jun 1998, now patented, Pat. No. US 6087063		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-171947	19970627
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Trinh, Ba K.	
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack, L.L.P.	
NUMBER OF CLAIMS:	2	
EXEMPLARY CLAIM:	1	
LINE COUNT:	781	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 48 OF 167 USPATFULL

ACCESSION NUMBER: 2001:43900 USPATFULL

TITLE: Chemically amplified **resist** material and
process for the formation of **resist** patterns

INVENTOR(S): Takechi, Satoshi, Kawasaki, Japan

Hanyu, Isamu, Kawasaki, Japan

PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6207342	B1	20010327
APPLICATION INFO.:	US 1998-65567		19980424 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-277570	19971009
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Chu, John S.	
LEGAL REPRESENTATIVE:	Armstrong, Westerman, Hattori, McLeland & Naughton, LLP	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
LINE COUNT:	947	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 49 OF 167 USPATFULL

ACCESSION NUMBER: 2001:36574 USPATFULL

TITLE: Chemically amplified **resist** compositions and
process for the formation of **resist** patterns

INVENTOR(S): Takechi, Satoshi, Kawasaki, Japan

Kotachi, Akiko, Kawasaki, Japan

Nozaki, Koji, Kawasaki, Japan

Yano, Ei, Kawasaki, Japan

Watanabe, Keiji, Kawasaki, Japan

Namiki, Takahisa, Kawasaki, Japan

Igarashi, Miwa, Kawasaki, Japan

Makino, Yoko, Kawasaki, Japan

Takahashi, Makoto, Kawasaki, Japan

PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6200725	B1	20010313
APPLICATION INFO.:	US 1997-969368		19971128 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-673739, filed on 27 Jun 1996, now patented, Pat. No. US 6013416		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-162287	19950628
	JP 1995-178717	19950714
	JP 1995-312722	19951130
	JP 1996-50264	19960307
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hamilton, Cynthia	
LEGAL REPRESENTATIVE:	Armstrong, Westerman, Hattori, McLeland & Naughton	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	4312	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 50 OF 167 USPATFULL

ACCESSION NUMBER: 2000:164240 USPATFULL

TITLE: Positive **resist** composition

INVENTOR(S): Takeda, Takanobu, Nakakubiki-gun, Japan
Watanabe, Osamu, Nakakubiki-gun, Japan
Watanabe, Jun, Nakakubiki-gun, Japan
Hatakeyama, Jun, Nakakubiki-gun, Japan
Ohsawa, Youichi, Nakakubiki-gun, Japan
Ishihara, Toshinobu, Nakakubiki-gun, Japan

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6156481		20001205
APPLICATION INFO.:	US 1999-428911		19991028 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-307727	19981029
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Baxter, Janet	
ASSISTANT EXAMINER:	Ashton, Rosemary	
LEGAL REPRESENTATIVE:	Millen, White, Zelano & Branigan, P.C.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
LINE COUNT:	846	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 51 OF 167 USPATFULL

ACCESSION NUMBER: 2000:142068 USPATFULL

TITLE: **Polymers and photoresist**
compositions comprising same

INVENTOR(S): Trefonas, III, Peter, Medway, MA, United States
Taylor, Gary N., Northboro, MA, United States
Barclay, George G., Jefferson, MA, United States

PATENT ASSIGNEE(S): Shipley Company, L.L.C., Marlborough, MA, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6136501		20001024
APPLICATION INFO.:	US 1998-143462		19980828 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Chu, John S.		
ASSISTANT EXAMINER:	Clarke, Yvette M		
LEGAL REPRESENTATIVE:	Corless, Peter F., Frickey, Darryl P., Cairns, S. Matthew		
NUMBER OF CLAIMS:	30		
EXEMPLARY CLAIM:	1,20		
LINE COUNT:	865		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 52 OF 167 USPATFULL

ACCESSION NUMBER: 2000:87893 USPATFULL

TITLE: Positive-working **photoresist** composition

INVENTOR(S): Hada, Hideo, Hiratsuka, Japan
Sato, Kazufumi, Sagamihara, Japan
Komano, Hiroshi, Samukawa-machi, Japan

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6087063		20000711
APPLICATION INFO.:	US 1998-102622		19980623 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-171947	19970627
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Chu, John S.	
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack, L.L.P.	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	832	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 53 OF 167 USPATFULL
ACCESSION NUMBER: 2000:77160 USPATFULL
TITLE: Positive-working **resist** composition
INVENTOR(S): Hada, Hideo, Hiratsuka, Japan
Sato, Kazufumi, Sagamihara, Japan
Komano, Hiroshi, Kanagawa-ken, Japan
Nakayama, Toshimasa, Chigasaki, Japan
PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077644		20000620
APPLICATION INFO.:	US 1998-207202		19981208 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-912123, filed on 15 Aug 1997, now patented, Pat. No. US 5929271		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-218803	19960820
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Baxter, Janet	
ASSISTANT EXAMINER:	Ashton, Rosemary	
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack, L.L.P.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	760	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 54 OF 167 USPATFULL
ACCESSION NUMBER: 2000:50504 USPATFULL
TITLE: Composition for underlying film and method of forming a pattern using the film
INVENTOR(S): Sato, Yasuhiko, Yokohama, Japan
Onishi, Yasunobu, Yokohama, Japan
PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6054254		20000425
APPLICATION INFO.:	US 1998-108967		19980702 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-178671	19970703
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Baxter, Janet	
ASSISTANT EXAMINER:	Clarke, Yvette M	
LEGAL REPRESENTATIVE:	Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	39 Drawing Figure(s); 6 Drawing Page(s)	
LINE COUNT:	2350	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 55 OF 167 USPATFULL
 ACCESSION NUMBER: 2000:37549 USPATFULL
 TITLE: Positive working photosensitive composition
 INVENTOR(S): Aoi, Toshiaki, Shizuoka, Japan
 Tan, Shiro, Shizuoka, Japan
 Sato, Kenichiro, Shizuoka, Japan
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6042991		20000328
APPLICATION INFO.:	US 1998-25451		19980218 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-33958	19970218
	JP 1997-46000	19970228
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Le, Hoa Van	
ASSISTANT EXAMINER:	Lee, Sin J.	
LEGAL REPRESENTATIVE:	Sughrue, Mion, Zinn, Macpeak & Seas, PLLC	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2172	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 56 OF 167 USPATFULL
 ACCESSION NUMBER: 2000:4579 USPATFULL
 TITLE: Chemically amplified **resist** compositions and process for the formation of **resist** patterns
 INVENTOR(S): Nozaki, Koji, Kawasaki, Japan
 Yano, Ei, Kawasaki, Japan
 Watanabe, Keiji, Kawasaki, Japan
 Namiki, Takahisa, Kawasaki, Japan
 Igarashi, Miwa, Kawasaki, Japan
 Kuramitsu, Yoko, Kawasaki, Japan
 Takechi, Satoshi, Kawasaki, Japan
 Kotachi, Akiko, Kawasaki, Japan
 Takahashi, Makoto, Kawasaki, Japan
 PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6013416		20000111
APPLICATION INFO.:	US 1996-673739		19960627 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-162287	19950628
	JP 1995-178717	19950714
	JP 1995-312722	19951130
	JP 1996-50264	19960307
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hamilton, Cynthia	
LEGAL REPRESENTATIVE:	Armstrong, Westerman Hattori, McLeland & Naughton	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3627	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 57 OF 167 USPATFULL
 ACCESSION NUMBER: 2000:1669 USPATFULL
 TITLE: **Resist** composition
 INVENTOR(S): Abe, Nobunori, Kanagawa, Japan
 Matsuno, Shugo, Tokyo, Japan
 Tanaka, Hideyuki, Tokyo, Japan
 Sugimoto, Tatsuya, Kanagawa, Japan
 Wada, Yasumasa, Kanagawa, Japan
 PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6010826		20000104
	WO 9612216		19960425
APPLICATION INFO.:	US 1997-817358		19970411 (8)
	WO 1995-JP2114		19951013
			19970411 PCT 371 date
			19970411 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-274457	19941013
	JP 1995-21250	19950113
	JP 1995-84729	19950316
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hamilton, Cynthia	
LEGAL REPRESENTATIVE:	Dinsmore & Shohl LLP	
NUMBER OF CLAIMS:	30	
EXEMPLARY CLAIM:	1,3	
LINE COUNT:	2242	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 58 OF 167 USPATFULL
 ACCESSION NUMBER: 1999:128329 USPATFULL
 TITLE: Chemically amplified **resist** compositions and process for the formation of **resist** patterns
 INVENTOR(S): Nozaki, Koji, Kawasaki, Japan
 Yano, Ei, Kawasaki, Japan
 Watanabe, Keiji, Kawasaki, Japan
 Namiki, Takahisa, Kawasaki, Japan
 Igarashi, Miwa, Kawasaki, Japan
 Kuramitsu, Yoko, Kawasaki, Japan
 Takechi, Satoshi, Kawasaki, Japan
 Kotachi, Akiko, Kawasaki, Japan
 Takahashi, Makoto, Kawasaki, Japan
 PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5968713		19991019
APPLICATION INFO.:	US 1997-896833		19970718 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-673739, filed on 27 Jun 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1995-162287	19950628
	JP 1995-178717	19950714
	JP 1995-312722	19951130
	JP 1996-50264	19960307
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hamilton, Cynthia	
LEGAL REPRESENTATIVE:	Armstrong, Westerman, Hattori, McLeland, and, Naughton	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1,11	
LINE COUNT:	3663	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 59 OF 167 USPATFULL
 ACCESSION NUMBER: 1999:85622 USPATFULL
 TITLE: Compounds for use in a positive-working **resist** composition
 INVENTOR(S): Hada, Hideo, Hiratsuka, Japan
 Sato, Kazufumi, Sagamihara, Japan
 Komano, Hiroshi, Kanagawa-ken, Japan
 Nakayama, Toshimasa, Chigasaki, Japan
 PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5929271		19990727
APPLICATION INFO.:	US 1997-912123		19970815 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-218803	19960820
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Barts, Samuel	
ASSISTANT EXAMINER:	Keys, Rosalyn	
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack, L.L.P.	
NUMBER OF CLAIMS:	2	
EXEMPLARY CLAIM:	1	
LINE COUNT:	703	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L17 ANSWER 60 OF 167 USPATFULL
 ACCESSION NUMBER: 1999:65150 USPATFULL
 TITLE: **Resist** composition, a process for forming a **resist** pattern and a process for manufacturing a semiconductor device
 INVENTOR(S): Nozaki, Koji, Kawasaki, Japan
 Yano, Ei, Kawasaki, Japan
 Watanabe, Keiji, Kawasaki, Japan
 Namiki, Takahisa, Kawasaki, Japan
 Igarashi, Miwa, Kawasaki, Japan
 PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

7	ANSWER 12 OF 167	USPATFULL	
PI	US 2002004178	A1	20020110
L17	ANSWER 13 OF 167	USPATFULL	
PI	US 2001051316	A1	20011213
L17	ANSWER 14 OF 167	USPATFULL	
PI	US 2001051315	A1	20011213
L17	ANSWER 15 OF 167	USPATFULL	
PI	US 2001049075	A1	20011206
L17	ANSWER 16 OF 167	USPATFULL	
PI	US 2001046641	A1	20011129
L17	ANSWER 17 OF 167	USPATFULL	
PI	US 2001044072	A1	20011122
L17	ANSWER 18 OF 167	USPATFULL	
PI	US 2001044071	A1	20011122
L17	ANSWER 19 OF 167	USPATFULL	
PI	US 2001044070	A1	20011122
L17	ANSWER 20 OF 167	USPATFULL	
PI	US 2001038971	A1	20011108
L17	ANSWER 21 OF 167	USPATFULL	
PI	US 2001036593	A1	20011101
L17	ANSWER 22 OF 167	USPATFULL	
PI	US 2001035394	A1	20011101
L17	ANSWER 23 OF 167	USPATFULL	
PI	US 2001033994	A1	20011025
L17	ANSWER 24 OF 167	USPATFULL	
PI	US 2001033990	A1	20011025
L17	ANSWER 25 OF 167	USPATFULL	
PI	US 2001033987	A1	20011025
L17	ANSWER 26 OF 167	USPATFULL	
PI	US 6306554	B1	20011023
L17	ANSWER 27 OF 167	USPATFULL	
PI	US 2001031421	A1	20011018
L17	ANSWER 28 OF 167	USPATFULL	
PI	US 6303266	B1	20011016
L17	ANSWER 29 OF 167	USPATFULL	
PI	US 2001026901	A1	20011004
L17	ANSWER 30 OF 167	USPATFULL	
PI	US 2001024763	A1	20010927
L17	ANSWER 31 OF 167	USPATFULL	
PI	US 6294309	B1	20010925
L17	ANSWER 32 OF 167	USPATFULL	
PI	US 2001023050	A1	20010920

L17	ANSWER 33 OF 167	USPATFULL	
PI	US 6291130	B1	20010918
L17	ANSWER 34 OF 167	USPATFULL	
PI	US 6284429	B1	20010904
L17	ANSWER 35 OF 167	USPATFULL	
PI	US 6280911	B1	20010828
L17	ANSWER 36 OF 167	USPATFULL	
PI	US 6280898	B1	20010828
L17	ANSWER 37 OF 167	USPATFULL	
PI	US 6280897	B1	20010828
L17	ANSWER 38 OF 167	USPATFULL	
PI	US 2001016298	A1	20010823
L17	ANSWER 39 OF 167	USPATFULL	
PI	US 2001014428	A1	20010816
L17	ANSWER 40 OF 167	USPATFULL	
PI	US 6270941	B1	20010807
L17	ANSWER 41 OF 167	USPATFULL	
PI	US 6265131	B1	20010724
L17	ANSWER 42 OF 167	USPATFULL	
PI	US 6248920	B1	20010619
L17	ANSWER 43 OF 167	USPATFULL	
PI	US 2001003772	A1	20010614
L17	ANSWER 44 OF 167	USPATFULL	
PI	US 2001003640	A1	20010614
	US 6329125	B2	20011211
L17	ANSWER 45 OF 167	USPATFULL	
PI	US 6245485	B1	20010612
L17	ANSWER 46 OF 167	USPATFULL	
PI	US 6239231	B1	20010529
L17	ANSWER 47 OF 167	USPATFULL	
PI	US 6225476	B1	20010501
L17	ANSWER 48 OF 167	USPATFULL	
PI	US 6207342	B1	20010327
L17	ANSWER 49 OF 167	USPATFULL	
PI	US 6200725	B1	20010313
L17	ANSWER 50 OF 167	USPATFULL	
PI	US 6156481		20001205
L17	ANSWER 51 OF 167	USPATFULL	
PI	US 6136501		20001024
L17	ANSWER 52 OF 167	USPATFULL	
PI	US 6087063		20000711
L17	ANSWER 53 OF 167	USPATFULL	
PI	US 6077644		20000620

L17 ANSWER 54 OF 167 USPATFULL
PI US 6054254 20000425

L17 ANSWER 55 OF 167 USPATFULL
PI US 6042991 20000328

L17 ANSWER 56 OF 167 USPATFULL
PI US 6013416 20000111

L17 ANSWER 57 OF 167 USPATFULL
PI US 6010826 20000104
WO 9612216 19960425

L17 ANSWER 58 OF 167 USPATFULL
PI US 5968713 19991019

L17 ANSWER 59 OF 167 USPATFULL
PI US 5929271 19990727

L17 ANSWER 60 OF 167 USPATFULL
PI US 5910392 19990608

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002082441	A2	20020322	JP 2001-211147	20010711
	US 2002042016	A1	20020411	US 2001-901569	20010711

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002019033	A2	20020307	WO 2001-US26438	20010824
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1182506	A1	20020227	EP 2001-306923	20010814
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002062655	A2	20020228	JP 2000-250174	20000821
	JP 2002062656	A2	20020228	JP 2000-250175	20000821
	US 2002034704	A1	20020321	US 2001-928399	20010814

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002055455	A2	20020220	JP 2000-245051	20000811

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002049154	A2	20020215	JP 2000-233146	20000801

L17	ANSWER 66 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1179750	A1	20020213	EP 2001-117796	20010802
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

L17	ANSWER 67 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2002040661	A2	20020206	JP 2000-221889	20000724

=> d 117 68-167 pi

L17	ANSWER 68 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2002023376	A2	20020123	JP 2000-208514	20000710

L17	ANSWER 69 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2002023375	A2	20020123	JP 2000-208513	20000710

L17	ANSWER 70 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2002023372	A2	20020123	JP 2000-206901	20000707

L17	ANSWER 71 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1167349	A1	20020102	EP 2001-114724	20010621
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002015913	A1	20020207	US 2001-886386	20010622

L17	ANSWER 72 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001356478	A2	20011226	JP 2000-175519	20000612

L17	ANSWER 73 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1154321	A1	20011114	EP 2001-110179	20010507
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002030067	A2	20020129	JP 2000-255119	20000825
	US 2002006582	A1	20020117	US 2001-849523	20010507

L17	ANSWER 74 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
-----	------------------	--------	-----------	----------	--

L17	ANSWER 75 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001290276	A2	20011019	JP 2000-383801	20001218

L17	ANSWER 76 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1143299	A1	20011010	EP 2001-107747	20010402

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 CN 1316675 A 20011010 CN 2001-110230 20010402
 US 2001044070 A1 20011122 US 2001-824227 20010403

L17	ANSWER 77 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001242627	A2	20010907	JP 2000-51811	20000228
L17	ANSWER 78 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001242626	A2	20010907	JP 2000-51687	20000228
L17	ANSWER 79 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001240625	A2	20010904	JP 2000-49549	20000225
L17	ANSWER 80 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001235867	A2	20010831	JP 2000-47907	20000224
L17	ANSWER 81 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001235866	A2	20010831	JP 2000-47815	20000224
L17	ANSWER 82 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
L17	ANSWER 83 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001215709	A2	20010810	JP 2000-29257	20000207
L17	ANSWER 84 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001188352	A2	20010710	JP 2000-354974	20001121
L17	ANSWER 85 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001188346	A2	20010710	JP 2000-89903	20000328
L17	ANSWER 86 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001166478	A2	20010622	JP 1999-344910	19991203
L17	ANSWER 87 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001166474	A2	20010622	JP 1999-344911	19991203
L17	ANSWER 88 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001131232	A2	20010515	JP 1999-312329	19991102
L17	ANSWER 89 OF 167	CAPLUS	COPYRIGHT	2002 ACS	

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001131143	A2	20010515	JP 1999-313470	19991104
L17	ANSWER 90 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001125269	A2	20010511	JP 1999-307366	19991028
L17	ANSWER 91 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001117232	A2	20010427	JP 1999-297145	19991019
L17	ANSWER 92 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001109154	A2	20010420	JP 1999-285762	19991006
L17	ANSWER 93 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001075285	A2	20010323	JP 2000-231006	20000731
L17	ANSWER 94 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	EP 1085379 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO JP 2001109157 JP 2001209181	A1 A2 A2	20010321 20010420 20010803	EP 2000-120000 JP 1999-291291 JP 2000-277966	20000914 19991013 20000913
L17	ANSWER 95 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001066778	A2	20010316	JP 1999-242053	19990827
L17	ANSWER 96 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001056556	A2	20010227	JP 1999-234239	19990820
L17	ANSWER 97 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001042535	A2	20010216	JP 1999-211370	19990726
L17	ANSWER 98 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001042534	A2	20010216	JP 1999-211369	19990726
L17	ANSWER 99 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001042533	A2	20010216	JP 1999-211368	19990726
L17	ANSWER 100 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2001042532	A2	20010216	JP 1999-211367	19990726

L17	ANSWER 101 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001033969	A2	20010209	JP 1999-203676	19990716
L17	ANSWER 102 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001027807	A2	20010130	JP 1999-199210	19990713
L17	ANSWER 103 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001022072	A2	20010126	JP 1999-193603	19990707
L17	ANSWER 104 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001022071	A2	20010126	JP 1999-193602	19990707
L17	ANSWER 105 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001022070	A2	20010126	JP 1999-193601	19990707
L17	ANSWER 106 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001004706	A1	20010118	WO 2000-JP4623	20000711
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
L17	ANSWER 107 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001013686	A2	20010119	JP 1999-186607	19990630
L17	ANSWER 108 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001005184	A2	20010112	JP 1999-175976	19990622
L17	ANSWER 109 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000321772	A2	20001124	JP 1999-128838	19990510
L17	ANSWER 110 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000321771	A2	20001124	JP 1999-127296	19990507
L17	ANSWER 111 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
L17	ANSWER 112 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
L17	ANSWER 113 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
L17	ANSWER 114 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
L17	ANSWER 115 OF 167	CAPLUS	COPYRIGHT	2002 ACS	

PI	JP 2000187327	A2	20000704	JP 1998-327056	19981117
L17	ANSWER 130 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000187329	A2	20000704	JP 1998-367619	19981224
L17	ANSWER 131 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000181054	A2	20000630	JP 1998-327055	19981117
L17	ANSWER 132 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000159758 KR 2000023368 TW 442706	A2 A B	20000613 20000425 20010623	JP 1999-255167 KR 1999-40854 TW 1999-88116425	19990909 19990922 19990923
L17	ANSWER 133 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000147776	A2	20000526	JP 1998-327054	19981117
L17	ANSWER 134 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000147775	A2	20000526	JP 1998-327052	19981117
L17	ANSWER 135 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000122294 JP 2001188351	A2 A2	20000428 20010710	JP 1999-70591 JP 2000-351365	19990316 19990316
L17	ANSWER 136 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	EP 982628 EP 982628	A2 A3	20000301 20000503	EP 1999-116705	19990825
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CN 1245910	A	20000301	CN 1999-111698	19990824
	JP 2000137327	A2	20000516	JP 1999-238542	19990825
	US 6239231	B1	20010529	US 1999-384032	19990826
L17	ANSWER 137 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000029219	A2	20000128	JP 1998-197730	19980713
L17	ANSWER 138 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000029218	A2	20000128	JP 1998-197729	19980713
L17	ANSWER 139 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 2000029216	A2	20000128	JP 1998-194566	19980709
L17	ANSWER 140 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE

L17	ANSWER 116 OF 167 CAPLUS COPYRIGHT 2002 ACS				
L17	ANSWER 117 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000292917	A2	20001020	JP 1999-98796	19990406
L17	ANSWER 118 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000275840	A2	20001006	JP 1999-83403	19990326
L17	ANSWER 119 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000275838	A2	20001006	JP 1999-82404	19990325
L17	ANSWER 120 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1041442	A1	20001004	EP 2000-105938	20000323
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001192569	A2	20010717	JP 2000-60057	20000306
	CN 1268680	A	20001004	CN 2000-103514	20000324
	US 6348297	B1	20020219	US 2000-533986	20000324
L17	ANSWER 121 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1035441	A1	20000913	EP 2000-104965	20000308
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2000321774	A2	20001124	JP 2000-40647	20000218
	JP 2002072487	A2	20020312	JP 2001-214693	20000218
	US 2001049075	A1	20011206	US 2000-520805	20000308
L17	ANSWER 122 OF 167 CAPLUS COPYRIGHT 2002 ACS				
L17	ANSWER 123 OF 167 CAPLUS COPYRIGHT 2002 ACS				
L17	ANSWER 124 OF 167 CAPLUS COPYRIGHT 2002 ACS				
L17	ANSWER 125 OF 167 CAPLUS COPYRIGHT 2002 ACS				
L17	ANSWER 126 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000227659	A2	20000815	JP 1999-30209	19990208
L17	ANSWER 127 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000214588	A2	20000804	JP 1999-18511	19990127
L17	ANSWER 128 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000194135	A2	20000714	JP 1998-371210	19981225
L17	ANSWER 129 OF 167 CAPLUS COPYRIGHT 2002 ACS				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----

PI	JP 11352693	A2	19991224	JP 1998-159267	19980608
L17	ANSWER 141 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11295894	A2	19991029	JP 1998-96205	19980408
L17	ANSWER 142 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11271974	A2	19991008	JP 1998-74295	19980323
L17	ANSWER 143 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11258801	A2	19990924	JP 1998-65598	19980316
L17	ANSWER 144 OF 167	CAPLUS	COPYRIGHT	2002 ACS	
L17	ANSWER 145 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11231539	A2	19990827	JP 1998-34900	19980217
L17	ANSWER 146 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11218927	A2	19990810	JP 1998-23499	19980204
L17	ANSWER 147 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11212265	A2	19990806	JP 1998-12407	19980126
L17	ANSWER 148 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11158118	A2	19990615	JP 1997-332814	19971203
L17	ANSWER 149 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11109628	A2	19990423	JP 1997-267024	19970930
L17	ANSWER 150 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11102065	A2	19990413	JP 1997-263278	19970929
L17	ANSWER 151 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11084663 US 6280897	A2 B1	19990326 20010828	JP 1997-366051 US 1997-997623	19971224 19971223
L17	ANSWER 152 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE
PI	JP 11012326	A2	19990119	JP 1997-165935	19970623
L17	ANSWER 153 OF 167 PATENT NO.	CAPLUS KIND	COPYRIGHT DATE	2002 ACS APPLICATION NO.	DATE

PI	JP 10319595	A2	19981204	JP 1997-130131	19970520
L17	ANSWER 154 OF 167 CAPLUS COPYRIGHT 2002 ACS				
L17	ANSWER 155 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10301285	A2	19981113	JP 1997-112698	19970430
L17	ANSWER 156 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10301284	A2	19981113	JP 1997-112604	19970430
L17	ANSWER 157 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10239847 US 6042991	A2 A	19980911 20000328	JP 1997-46000 US 1998-25451	19970228 19980218
L17	ANSWER 158 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10232495 US 6042991	A2 A	19980902 20000328	JP 1997-33958 US 1998-25451	19970218 19980218
L17	ANSWER 159 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10221852	A2	19980821	JP 1997-24011	19970206
L17	ANSWER 160 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10182552 US 6248920	A2 B1	19980707 20010619	JP 1996-350765 US 1997-996158	19961227 19971222
L17	ANSWER 161 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10161313 US 2001003640 US 6329125	A2 A1 B2	19980619 20010614 20011211	JP 1996-320105 US 2000-739259	19961129 20001219
L17	ANSWER 162 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10133377 US 5910392 TW 434452	A2 A B	19980522 19990608 20010516	JP 1996-288524 US 1997-882734 TW 1997-86110419	19961030 19970626 19970722
L17	ANSWER 163 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10078658	A2	19980324	JP 1996-235247	19960905
L17	ANSWER 164 OF 167 CAPLUS COPYRIGHT 2002 ACS				
L17	ANSWER 165 OF 167 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09050126	A2	19970218	JP 1995-202343	19950808

L17 ANSWER 166 OF 167 CAPLUS COPYRIGHT 2002 ACS

L17 ANSWER 167 OF 167 CAPLUS COPYRIGHT 2002 ACS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5910392		19990608
APPLICATION INFO.:	US 1997-882734		19970626 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-288524	19961030
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Baxter, Janet	
ASSISTANT EXAMINER:	Clarke, Yvette	
LEGAL REPRESENTATIVE:	Armstrong, Westerman, Hattori, McLeland & Naughton	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1,13,15	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	1484	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 61 OF 167 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:219917 CAPLUS

DOCUMENT NUMBER: 136:254554

TITLE: Chemically amplified positive **photoresist** compositions having lactone-containing **polymers** with good dry etching resistance

INVENTOR(S): Yoon, Kwang Sup; Jung, Dong Won; Lee, Si Hyeung; Kim, Hyun Woo; Lee, Sook; Woo, Sang Gyun; Choi, Sang Joon

PATENT ASSIGNEE(S): Samsung Electronics Co., Ltd., S. Korea

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002082441	A2	20020322	JP 2001-211147	20010711
US 2002042016	A1	20020411	US 2001-901569	20010711
PRIORITY APPLN. INFO.:			KR 2000-39562 A	20000711
			KR 2000-75485 A	20001212

L17 ANSWER 62 OF 167 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:172248 CAPLUS

DOCUMENT NUMBER: 136:224211

TITLE: **Photoacid generators** and **photoresists** comprising same

INVENTOR(S): Cameron, James F.; Pohlers, Gerhard

PATENT ASSIGNEE(S): Shipley Company, L.L.C., USA

SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002019033	A2	20020307	WO 2001-US26438	20010824

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,

LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO,
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-648022 A 20000825
 OTHER SOURCE(S): MARPAT 136:224211

L17 ANSWER 63 OF 167 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:157200 CAPLUS

DOCUMENT NUMBER: 136:207692

TITLE: Crosslinked positive-working **photoresist**
 composition

INVENTOR(S): Oomori, Katsumi; Kinoshita, Yohei; Yamada, Tomotaka;
 Takayama, Toshikazu

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1182506	A1	20020227	EP 2001-306923	20010814
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002062655	A2	20020228	JP 2000-250174	20000821
JP 2002062656	A2	20020228	JP 2000-250175	20000821
US 2002034704	A1	20020321	US 2001-928399	20010814

PRIORITY APPLN. INFO.: JP 2000-250174 A 20000821
 JP 2000-250175 A 20000821

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 64 OF 167 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:131264 CAPLUS

DOCUMENT NUMBER: 136:191693

TITLE: Chemically amplified **resist** material and
 manufacture of **resist** pattern with improved
 dry etching resistance using it

INVENTOR(S): Murakami, Kenichi; Takechi, Satoshi

PATENT ASSIGNEE(S): Fujitsu Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002055455	A2	20020220	JP 2000-245051	20000811

L17 ANSWER 65 OF 167 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:119603 CAPLUS

DOCUMENT NUMBER: 136:191685

TITLE: Positively working **photoresist** composition
 for far-ultraviolet exposure

INVENTOR(S): Nakao, Hajime; Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002049154	A2	20020215	JP 2000-233146	20000801

OTHER SOURCE(S): MARPAT 136:191685

L17 ANSWER 66 OF 167 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:119352 CAPLUS
DOCUMENT NUMBER: 136:175472
TITLE: Positive photosensitive composition for
photofabrication using deep UV ray
INVENTOR(S): Kodama, Kunihiko; Aoai, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 120 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1179750	A1	20020213	EP 2001-117796	20010802

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: JP 2000-240059 A 20000808
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 67 OF 167 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:99076 CAPLUS
DOCUMENT NUMBER: 136:175461
TITLE: Positive-working radiation-sensitive **resist**
composition suitable for subquartermicron patterning
INVENTOR(S): Tamura, Kazutaka; Nio, Hiroyuki; Senoo, Masahide
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002040661	A2	20020206	JP 2000-221889	20000724